



STIC Search Report

EIC 2100

STIC Database Tracking Number: 108235

TO: Thu Ha Nguyen
Location:
Art Unit : 2155
Monday, November 24, 2003

Case Serial Number: 09697398

From: Terese Esterheld
Location: EIC 2100
PK2-4B30
Phone: 308-7795

Terese.esterheld@uspto.gov

Search Notes

Dear Examiner Nguyen,

Attached, please find the results of your search request for application 09697398. I have concentrated on finding information on Cluster Computer Systems.

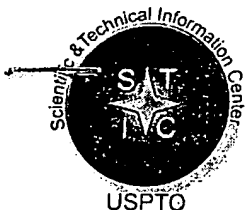
I have marked items that may meet you needs. Look over the complete package as there are items not marked that may also be of value to you.

Please let me if you need additional information on this search.

Thank you for coming to EIC 2100.

Terese Esterheld





STIC EIC 2100 Search Request Form

108235
(63)

Today's Date:

11/12/03

What date would you like to use to limit the search?

Priority Date: 10/27/00

Other:

Name THU HA NGUYEN

AU 2155 Examiner # 77580

Room # CPR 2-5A08 Phone 305-7447

Serial # 09/ 697, 398

Format for Search Results (Circle One):

PAPER DISK EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other _____

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

- Organizing a plurality of members (computers), in a ~~can~~ cluster computers system, into a subgroup from a plurality of members
- Determining locally (within a subgroup) whether the local member is a leader for a subgroup.
- Determining within the subgroup leader whether data has been already transmitted to members in subgroup.
- Performing acknowledgment/response from members to detect any failed member, repeat performing step until no failed members are detected.

STIC Searcher Terese Esterheld

Phone 308-7795

Date picked up 11/24/03 9:45

Date Completed 11/24/03 5:00pm





STIC Search Results Feedback Form

EIC 2100

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Anne Hendrickson, EIC 2100 Team Leader
308-7831, CPK2-4B40

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 2100

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC2100 CPK2-4B40



Set	Items	Description
S1	186	AU='MILLER R'
S2	17	AU='MILLER ROBERT'
S3	8	AU='MOREY V L' OR AU='MOREY VICKI LYNN'
S4	5	AU='THAYIB K'
S5	106	AU='WILLIAMS L' OR AU='WILLIAMS L A' OR AU='WILLIAMS L A M D'
S6	303	S1 OR S2 OR S3 OR S4 OR S5
S7	32	S6 AND IC=G06F?

File 347:JAPIO Oct 1976-2003/Jul (Updated 031105)
(c) 2003 JPO & JAPIO

File 348:EUROPEAN PATENTS 1978-2003/Nov W03
(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031120,UT=20031113
(c) 2003 WIPO/Univentio

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200375
(c) 2003 Thomson Derwent

7/5/1 (Item 1 from file: 347)
DIALOG(R) File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

07248556 **Image available**
DEVICE AND METHOD FOR PROCESSING MERGE REQUEST RECEIVED BY MEMBER IN GROUP
IN CLUSTERED COMPUTER SYSTEM

PUB. NO.: 2002-117010 [JP 2002117010 A]
PUBLISHED: April 19, 2002 (20020419)
INVENTOR(s): MILLER ROBERT
MAURY V L
KISWANTO TAIBU
LOWREY AN WILLIAMS
APPLICANT(s): INTERNATL BUSINESS MACH CORP (IBM)
APPL. NO.: 2001-237064 [JP 20011237064]
FILED: August 03, 2001 (20010803)
PRIORITY: 00 638328 [US 2000638328], US (United States of America),
August 14, 2000 (20000814)
INTL CLASS: G06F-015/16 ; G06F-009/46

ABSTRACT

PROBLEM TO BE SOLVED: To provide an improved method for executing merging operation to connect many partitions in a clustered computer system, its device, and a program product and a medium which holds the program product.

SOLUTION: The device, program product, and method for executing the merging operation use messages sequenced by the clustered computer system to shift the execution of a merging protocol in a clustered group by generally guaranteeing the cancellation or completion of each holding program prior to the execution of the merging protocol until all holding protocols of respective partitions in the group are executed. From the point of view of each group member, the execution of the merging protocols is changed by impeding the processing of a merging request by such a member after all precedent reception requests which are being held are processed.

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7/5/2 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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01519722

GROUP ACCESS PRIVATIZATION IN CLUSTERED COMPUTER SYSTEM
PRIVATISATION D'ACCES DE GROUPE D'UN SYSTEME INFORMATIQUE EN GRAPPE
PATENT ASSIGNEE:

International Business Machines Corporation, (200128), New Orchard Road,
Armonk, NY 10504, (US), (Applicant designated States: all)

INVENTOR:

MILLER, Robert , 4814 57th Street N.W., Rochester, MN 55901, (US)
MOREY, Vicki, Lynn , 10105 125th Street N.W., Pine Island, MN 55936,
(US)

WILLIAMS, Laurie, Ann, 2812 45th Avenue S.E., Rochester, MN 55904, (US)
PATENT (CC, No, Kind, Date):

WO 2002088992 021107

APPLICATION (CC, No, Date): EP 2001995450 011211; WO 2001US47260 011211

PRIORITY (CC, No, Date): US 845596 010430

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/00

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030102 A1 International application. (Art. 158(1))

Application: 030102 A1 International application entering European
phase

LANGUAGE (Publication,Procedural,Application): English; English; English

7/5/3 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.

01000378

CONTROLLERLESS MODEM
MODEM OHNE STEUERUNG
MODEM SANS CONTROLEUR
PATENT ASSIGNEE:

Cirrus Logic, Inc, (2519640), 3100 west Warren Avenue, MS-521, Fremont,
CA 94538-6419, (US), (Applicant designated States: all)

INVENTOR:

BADER, Jim, 2321 Tamarack Court, Raleigh, NC 27612, (US)
Deans, Scott, 9009 Avondale Road NE No.N-227, Redmond, Washington 98052,
(US)

MILLER, Robert , 8617 Sleepy Creek Drive, Raleigh, NC 27613, (US)
WANI, Bakim, 2009 Carrbridge Waym, Raleigh, NC 27615, (US)
TARQUINI, Richard, P., 1010 Beechmont Court, Apex, NC 27502, (US)
WATERS, Jack, 3025 Stone Gap Court, Raleigh, NC 27612, (US)

LEGAL REPRESENTATIVE:

Funnell, Samantha Jane et al (79773), Hepworth Lawrence Bryer & Bizley
Merlin House Falconry Court Bakers Lane, Epping, Essex CM16 5DQ, (GB)

PATENT (CC, No, Kind, Date): EP 972248 A1 000119 (Basic)

WO 9844425 981008

APPLICATION (CC, No, Date): EP 98914387 980331; WO 98US6385 980331

PRIORITY (CC, No, Date): US 832622 970331

DESIGNATED STATES: DE; FR; GB; NL

INTERNATIONAL PATENT CLASS: G06F-013/10

CITED PATENTS (WO A): XP 2064675

CITED REFERENCES (WO A):

M. TRAMONTANO: "Host Signal Processing Part II" MOTOROLA INFORMATION
SYSTEMS GROUP WHITE PAPER, 11 November 1996, pages 1-3, XP002064675;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Change: 000510 A1 Inventor information changed: 20000321

Application: 20000119 A1 Published application with search report

Withdrawal: 031119 A1 Date application deemed withdrawn: 20030515

Examination: 021218 A1 Date of dispatch of the first examination
report: 20021104

Application: 990317 A1 International application (Art. 158(1))

Examination: 20000119 A1 Date of request for examination: 19990906

Change: 20000126 A1 Title of invention (German) changed: 19991204

LANGUAGE (Publication,Procedural,Application): English; English; English

7/5/4 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00954878 **Image available**

GROUP ACCESS PRIVATIZATION IN CLUSTERED COMPUTER SYSTEM
PRIVATISATION D'ACCES DE GROUPE D'UN SYSTEME INFORMATIQUE EN GRAPPE
Patent Applicant/Assignee:

INTERNATIONAL BUSINESS MACHINES CORPORATION, New Orchard Road, Armonk, NY
10504, US, US (Residence), US (Nationality)

Inventor(s):

MILLER Robert , 4814 57th Street N.W., Rochester, MN 55901, US,
MOREY Vicki Lynn , 10105 125th Street N.W., Pine Island, MN 55936, US,
WILLIAMS Laurie Ann, 2812 45th Avenue S.E., Rochester, MN 55904, US

Legal Representative:

NEFF Daryl K (agent), International Business Machines Corporation, Dept.
18G/Bldg. 300-482, 2070 Route 52, Hopewell Junction, NY 12533-6531, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200288992 A1 20021107 (WO 0288992)
Application: WO 2001US47260 20011211 (PCT/WO US0147260)
Priority Application: US 2001845596 20010430

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **G06F-017/00**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6955

English Abstract

An apparatus, clustered computer system, program product and method rely on cluster-private group names (42) to perform accesses to groups that are resident in a clustered computer system. Thus, for a cluster-accessible group, all nodes (46) capable of participating in a cluster are configured to map to the same cluster-private group name (42) for that group, so that any external user that has access to the clustered computer system can access the group names (42) and utilize the group name (42) to initiate operations by the group.

French Abstract

L'invention concerne un appareil, un systeme informatique en grappe, un produit programme et un procede base sur des noms de groupes prives en grappe (42) pour donner acces aux groupes residents d'un systeme informatique en grappe. Ainsi, pour un groupe accessible en grappe, tous les noeuds (46) capables de participer dans une grappe sont configures pour etre mis en correspondance avec le meme nom de groupe prive en grappe (42) de ce groupe, de telle maniere que n'importe quel utilisateur externe ayant acces au systeme informatique en grappe puisse acceder aux noms de groupe (42) et utiliser le nom de groupe (42) pour initier des fonctionnements par le groupe.

Legal Status (Type, Date, Text)

Publication 20021107 A1 With international search report.

Examination 20030410 Request for preliminary examination prior to end of
19th month from priority date

7/5/5 (Item 2 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00453961 **Image available**

CONTROLLERLESS MODEM

MODEM SANS CONTROLEUR

Patent Applicant/Assignee:

CIRRUS LOGIC INC,

Inventor(s):

BADER Jim,

DEANS Scott,

MILLER Robert ,

WANI Bakim,

TARQUINI Richard P,

WATERS Jack

Patent and Priority Information (Country, Number, Date):

Patent: WO 9844425 A1 19981008

Application: WO 98US6385 19980331 (PCT/WO US9806385)

. Priority Application: US 97832622 19970331
Designated States: CA CN IL JP KR SG AT BE CH DE DK ES FI FR GB GR IE IT LU
MC NL PT SE
Main International Patent Class: G06F-013/10
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3632

English Abstract

A modem is implemented as a virtual device driver with all processing handled by the host computer thus obviating the need for a stand alone processor for the modem. The modem virtual device driver ensures that the modem obtains adequate processing time regardless of other processes running on the host. By combining a port driver directly into the modem contact code, the need for a hardware UART with its attendant limitations is eliminated.

French Abstract

La presente invention concerne un modem mis en oeuvre sous forme de pilote de peripherique virtuel et pour lequel tout le traitement est effectue par l'ordinateur hote, de facon qu'il n'y ait plus besoin de processeur autonome pour le modem. Le modem pilote de peripherique virtuel fait en sorte que le modem obtienne un temps de traitement approprie, quels que soient les autres processus en cours d'execution au niveau de l'hote. En combinant un pilote de port directement dans le code de contact du modem, on n'est plus limite par un emetteur-recepteur asynchrone universel realise par materiel.

7/5/6 (Item 1 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015681351 **Image available**
WPI Acc No: 2003-743540/200370
Related WPI Acc No: 2001-564589
XRPX Acc No: N03-595429

Predefined task processing apparatus in networked computer system used in bank, routes message intended for work thread, to one of response queue and work queue of work thread, depending on type of message
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)
Inventor: MILLER R ; MOREY V L ; THAYIB K ; WILLIAMS L A
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6625639	B1	20030923	US 99421585	A	19991020	200370 B
			US 99438207	A	19991112	

Priority Applications (No Type Date): US 99438207 A 19991112; US 99421585 A 19991020

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6625639	B1	14	G06F-009/00	CIP of application US 99421585

Abstract (Basic): US 6625639 B1

NOVELTY - A job stored in a memory and executed by a processor, includes work thread to perform a predefined task and main thread to receive messages from other computer systems. The main thread routes a message intended for work thread, to one of the response queue and work queue of work thread, depending on type of message.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) networked computer system;
- (2) task processing method; and
- (3) program product for processing task.

USE - For processing predefined task between computer systems

connected through local area network (LAN), wide area network, intranet and internet, in banks and industry.

ADVANTAGE - By routing the messages to different queues, the designing of protocol codes is made easier.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the updating process of local copy of group state data on a node in clustered computing environment.

pp; 14 DwgNo 11/11

Title Terms: PREDEFINED; TASK; PROCESS; APPARATUS; COMPUTER; SYSTEM; BANK; ROUTE; MESSAGE; INTENDED; WORK; THREAD; ONE; RESPOND; QUEUE; WORK; QUEUE; WORK; THREAD; DEPEND; TYPE; MESSAGE

Derwent Class: T01; W01

International Patent Class (Main): G06F-009/00

File Segment: EPI

7/5/7 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015680995 **Image available**

WPI Acc No: 2003-743184/200370

XRFX Acc No: N03-595073

Survivor data information generating system, has computing device for processing demographic, financial and housing retirement data that is stored in memory and ESplanner for determining sustainable standard of living

Patent Assignee: ECONOMIC SECURITY PLANNING INC (ECON-N)

Inventor: BERNHEIM B D; GOKHALE J; KOTLIKOFF L J; WILLIAMS L A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6611807	B1	20030826	US 9878435	P	19980318	200370 B
			US 99268441	A	19990312	

Priority Applications (No Type Date): US 9878435 P 19980318; US 99268441 A 19990312

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6611807	B1	15	G06F-017/60	Provisional application US 9878435

Abstract (Basic): US 6611807 B1

NOVELTY - The system has a computing device for processing demographic, financial and housing retirement data stored in the memory and for optimizing survivor data. The data are a function of the tax liabilities, annual consumptions, non-asset income information, savings and life insurance recommendations, and are used by an ESplanner to determine a sustainable standard of living for a household.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a method of generating information representative of survivor data

(b) a computer implemented method for determining a planned per equivalent adult consumption expense profile.

USE - Used for financial planning in households.

ADVANTAGE - The survivor reports generated by the ESplanner help a householder to foresee an economic situation in which a spouse dies and enables them to afford a high standard of living that they enjoyed when both spouse were alive. The ESplanner also determines how much a household is saving.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow diagram of a process for generating financial planning information including insurance purchase recommendations.

pp; 15 DwgNo 1/1

Title Terms: DATA; INFORMATION; GENERATE; SYSTEM; COMPUTATION; DEVICE; PROCESS; FINANCIAL; HOUSING; DATA; STORAGE; MEMORY; DETERMINE; SUSTAINED; STANDARD; LIVE

Derwent Class: T01

International Patent Class (Main): G06F-017/60
File Segment: EPI

7/5/8 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

015648388 **Image available**
WPI Acc No: 2003-710571/200367
XRPX Acc No: N03-568149

Self-starting method of computer system in decentralized clustered system, involves joining node assigned with self- starting state value into clustered system when presence of sponsor node is determined in system

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)
Inventor: BLOCK T R; MILLER R ; THAYIB K
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030145050	A1	20030731	US 200257188	A	20020125	200367 B

Priority Applications (No Type Date): US 200257188 A 20020125
Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030145050	A1	12	G06F-015/16	

Abstract (Basic): US 20030145050 A1

NOVELTY - The method involves initiating an automated discovery process of determining whether a sponsor node is present in the clustered computer system. If the sponsor node is present, a node assigned with a self-starting state value is joined into the clustered system.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) computer program for starting computer system in decentralized system; and
- (2) computer system.

USE - For performing self-starting of computer system in decentralized clustered computer system.

ADVANTAGE - Enhances group communication, thereby providing a local state value to indicate whether the node has completed its starting protocol.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating the self-starting method of computer system.

pp; 12 DwgNo 3/5

Title Terms: SELF; START; METHOD; COMPUTER; SYSTEM; CLUSTER; SYSTEM; JOIN; NODE; ASSIGN; SELF; START; STATE; VALUE; CLUSTER; SYSTEM; PRESENCE; NODE; DETERMINE; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-015/16
File Segment: EPI

7/5/9 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015625911 **Image available**
WPI Acc No: 2003-688082/200365
XRPX Acc No: N03-549675

Network data sending method, involves storing identifier that is generated at lowest protocol layer of computer in reserved space of header and sending data with header from one protocol layer to other

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)
Inventor: BLOCK T R; MILLER R
Number of Countries: 001 Number of Patents: 001

Patent Family:
Patent No Kind Date Applicat No Kind Date Week
US 20030115356 A1 20030619 US 200120382 A 20011214 200365 B

Priority Applications (No Type Date): US 200120382 A 20011214

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 20030115356 A1 11 G06F-015/16

Abstract (Basic): US 20030115356 A1

NOVELTY - The method involves attaching headers to the data at their respective protocol layer of the computers and reserving a header space in them for storing an identifier. The data is then sent along with the headers from the protocol layer to its respective protocol layer of other computer over a network. In the recipient computer, the headers are removed from the data and stored in the space reserved for them in the header.

USE - Used for information communication between hosts, such as computers connected to a network.

ADVANTAGE - The addition of identifier at the header facilitates the tracing of data as it is processed through the protocol layers and also eliminates the difficulty of debugging process when data is lost.

DESCRIPTION OF DRAWING(S) - The drawing shows a hierarchical structure of a data communication protocol.

pp; 11 DwgNo 4/4

Title Terms: NETWORK; DATA; SEND; METHOD; STORAGE; IDENTIFY; GENERATE; LOW; PROTOCOL; LAYER; COMPUTER; RESERVE; SPACE; HEADER; SEND; DATA; HEADER; ONE; PROTOCOL; LAYER

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/16

File Segment: EPI

7/5/10 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

015603745 **Image available**
WPI Acc No: 2003-665902/200363
XRPX Acc No: N03-531542

A method of storing temporally consecutive values of at least one data item in a memory segment that can not be overwritten for small computing applications, uses sequential and bridging pointers

Patent Assignee: SHARP KK (SHAF)

Inventor: KAY A; MILLER R

Number of Countries: 102 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2386212	A	20030910	GB 20025573	A	20020309	200363 B
WO 200377133	A1	20030918	WO 2003JP2684	A	20030306	200371

Priority Applications (No Type Date): GB 20025573 A 20020309

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
GB 2386212 A 32 G06F-012/02
WO 200377133 A1 J G06F-012/02

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): GB 2386212 A

NOVELTY - A method of storing temporally consecutive values in a

memory that can not be overwritten comprises storing data as sets, each of which has two pointers, a local pointer and a far pointer, to enable chains to be established. The local, sequential, pointer is written to the data set immediately preceding the current set and the far, bridging, pointer to a data set earlier in the chain, both point to the current set.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an apparatus for storing temporally consecutively values of at least one data item.

USE - For use in small computing applications, such as embedded systems, including smart cards such as Java cards, digital active storage or security devices such as smart cards and smart discs, SIMS and USIMs for mobile telephones, data logging devices, small devices which record user preferences, store settings or log usage, computer systems in vehicles, set-top boxes and internet routers.

ADVANTAGE - The use of sequential and bridging pointers allows the chain to be shortened by jumping or bridging intermediate data sets facilitating the use of flash memory which has slow erase times and may rapidly wear out with repeated erasure required to the data in the same location each time it changes.

DESCRIPTION OF DRAWING(S) - The figure illustrates the initial part of a Persistent Data Item (PDI) structure after a large number of updates.

pp; 32 DwgNo 2/8

Title Terms: METHOD; STORAGE; TEMPORAL; CONSECUTIVE; VALUE; ONE; DATA; ITEM ; MEMORY; SEGMENT; CAN; COMPUTATION; APPLY; SEQUENCE; BRIDGE; POINT

Derwent Class: T01

International Patent Class (Main): G06F-012/02

International Patent Class (Additional): G06F-012/00 ; G06K-019/073; G11C-016/02

File Segment: EPI

7/5/11 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015450579 **Image available**

WPI Acc No: 2003-512721/200348

XRFX Acc No: N03-406907

Cluster infrastructure version updating method in clustered computer system, involves notifying updated information about clustered infrastructure, to group

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: DERVIN J A; MILLER R ; WILLIAMS L A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030074426	A1	20030417	US 2001975442	A	20011011	200348 B

Priority Applications (No Type Date): US 2001975442 A 20011011

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030074426	A1	10	G06F-015/177	

Abstract (Basic): US 20030074426 A1

NOVELTY - The cluster infrastructure in individual nodes are updated, while maintaining the groups managing the jobs performed by each node, in active state and is notified to the groups. The cluster infrastructure version used by the group, is dynamically updated in response to the notification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) cluster infrastructure version updating apparatus;
- (2) cluster infrastructure version updating program; and
- (3) clustered computer system.

USE - For updating a cluster infrastructure version by a group

resident in clustered computer system (claimed) which includes multiple nodes.

ADVANTAGE - Updates the clustered infrastructure version, without any shutdown and restarting of the group, thereby increasing the system availability.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining the cluster infrastructure updating method.

pp; 10 DwgNo 3/4

Title Terms: CLUSTER; VERSION; UPDATE; METHOD; CLUSTER; COMPUTER; SYSTEM; NOTIFICATION; UPDATE; INFORMATION; CLUSTER; GROUP

Derwent Class: T01

International Patent Class (Main): G06F-015/177

International Patent Class (Additional): G06F-015/16

File Segment: EPI

7/5/12 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015378878 **Image available**

WPI Acc No: 2003-439816/200341

XRPX Acc No: N03-351005

Co-operative job rejoining method for clustered computer system, involves determining whether job is existing job of primary-backup group of system

Patent Assignee: LASCHKEWITSCH C G (LASC-I); MILLER R (MILL-I); MOREY V L (MORE-I); WILLIAMS L A (WILL-I)

Inventor: LASCHKEWITSCH C G; MILLER R ; MOREY V L ; WILLIAMS L A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030056013	A1	20030320	US 2001952392	A	20010914	200341 B

Priority Applications (No Type Date): US 2001952392 A 20010914

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030056013	A1		12	G06F-015/16	

Abstract (Basic): US 20030056013 A1

NOVELTY - The method involves determining whether a co-operative job (j5) is an existing job of a primary-backup group overwrite operation by which a replicated group state data of the job is overwritten, is selected based on the determined result.

USE - For rejoining of job into primary backup group for clustered computer system.

ADVANTAGE - Enables completion of the required job and ensures synchronization of the group state data.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the clustered computer system.

co-operative job (j5)

pp; 12 DwgNo 1/4

Title Terms: CO; OPERATE; JOB; REJOIN; METHOD; CLUSTER; COMPUTER; SYSTEM; DETERMINE; JOB; EXIST; JOB; PRIMARY; GROUP; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-015/16

File Segment: EPI

7/5/13 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015354994 **Image available**

WPI Acc No: 2003-415932/200339

Related WPI Acc No: 1998-414313

XRPX Acc No: N03-331441

Progressive jackpot participant authorization method involves comparing

. validation code of gaming ticket with list of legitimate validation codes, to determine validity of gaming ticket
Patent Assignee: DIETZ M J (DIET-I); MILLER R (MILL-I); MORRIS E D (MORR-I)
Inventor: DIETZ M J; **MILLER R** ; MORRIS E D
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
US 6527175 B1 20030304 US 97786005 A 19970121 200339 B
US 99390253 A 19990903

Priority Applications (No Type Date): US 99390253 A 19990903; US 97786005 A 19970121

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6527175	B1	18	G06F-007/08		CIP of application US 97786005
					CIP of patent US 5949042

Abstract (Basic): US 6527175 B1

NOVELTY - A gaming ticket comprises a validation code which is a unique identification of the gaming ticket. The progressive jackpot is increased, each time when the ticket is inserted into a validation machine. A processor compares the unique validation code of the ticket with a list of legitimate validation codes, to determine the validity of the ticket, and accordingly the validation machine displays the game result.

USE - For authorizing progressive jackpot of participants.

ADVANTAGE - Gaming tickets can be used to win some or all of a progressive jackpot which continues to increase until claimed by a winner. The validation machines at one location can be linked with validation machines at other locations, to allow players to complete for large progressive jackpots.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart for the sequence of play using the pull-tab validation machine.

pp; 18 DwgNo 6/10

Title Terms: PROGRESS; PARTICIPATING; AUTHORISE; METHOD; COMPARE; VALID;

CODE; GAME; TICKET; LIST; VALID; CODE; DETERMINE; VALID; GAME; TICKET

Derwent Class: P36; T01; T05; W04

International Patent Class (Main): **G06F-007/08**

File Segment: EPI; EngPI

7/5/14 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015319508 **Image available**

WPI Acc No: 2003-380443/200336

XRPX Acc No: N03-303846

Membership management method in distributed computer system, involves providing set of interfaces which when invoked by request of requester cause members of group to access their respective copy of domain

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: LASCHKEWITSCH C G; **MILLER R** ; **MOREY V L** ; **WILLIAMS L A**

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030028594	A1	20030206	US 2001918746	A	20010731	200336 B

Priority Applications (No Type Date): US 2001918746 A 20010731

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030028594	A1	13	G06F-015/16		

Abstract (Basic): US 20030028594 A1

NOVELTY - A domain indicating all members of a cluster with a membership to a group, is provided to each member of the group. A set of interfaces are provided to manage the membership of the group, such

that when an interface is invoked by a request of a requester, each member of the group is caused to access its respective copy of the domain to determine whether the requester is indicated with the respective copy of the domain.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) computer system;
- (2) method of managing membership of jobs in cluster; and
- (3) memory of node in cluster.

USE - For managing membership of members in a cluster of computers that is distributed computer system.

ADVANTAGE - Allows membership within a group of a cluster to be determined and managed effectively.

DESCRIPTION OF DRAWING(S) - The figure shows the hardware configuration for one node in the clustered computer system.

pp; 13 DwgNo 3/7

Title Terms: MEMBER; MANAGEMENT; METHOD; DISTRIBUTE; COMPUTER; SYSTEM; SET; INTERFACE; INVOKE; REQUEST; CAUSE; MEMBER; GROUP; ACCESS; RESPECTIVE; COPY; DOMAIN

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-015/173

File Segment: EPI

7/5/15 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015319287 **Image available**

WPI Acc No: 2003-380222/200336

XRPX Acc No: N03-303631

Media content playback device for audio/video system, enables playback of media content at predetermined time, only after delivery of media content

Patent Assignee: ACQUESTA D J (ACQU-I); CASSIN L (CASS-I); MILLER R

(MILL-I); PELLEGRINO D A (PELL-I); RENN L A (RENN-I); PEGASUS

COMMUNICATION GROUP (PEGA-N)

Inventor: ACQUESTA D J; CASSIN L; MILLER R ; PELLEGRINO D A; RENN L A;

ACQUESTA D; PELLEGRINO D; RENN L

Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030023427	A1	20030130	US 2001912408	A	20010726	200336 B
WO 200310634	A2	20030206	WO 2002US23713	A	20020726	200336

Priority Applications (No Type Date): US 2001912408 A 20010726

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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US 20030023427	A1	44	G10L-021/00	
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WO 200310634	A2 E		G06F-000/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20030023427 A1

NOVELTY - The processor (150) controls the playback of media content delivered asynchronously over the communication channel (130). The playback of media content is enabled at a predetermined time only after the delivery of media content.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) media content delivery and playback scheme providing system;
- (2) computer program product for delivering media content; and

(3) media content delivery and playback scheme implementation method.

USE - For delivering media content to audio and video systems and to remote devices e.g. cellular phone.

ADVANTAGE - Enables the automatic delivery of disrupted data without delivering data that has already successfully delivered to the remote device.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view media content delivery and playback scheme implementing system.

communication channel (130)

processor (150)

pp; 44 DwgNo 1/23

Title Terms: MEDIUM; CONTENT; PLAYBACK; DEVICE; AUDIO; VIDEO; SYSTEM;

ENABLE; PLAYBACK; MEDIUM; CONTENT; PREDETERMINED; TIME; AFTER; DELIVER;

MEDIUM; CONTENT

Derwent Class: P86; T01; W01

International Patent Class (Main): G06F-000/00 ; G10L-021/00

File Segment: EPI; EngPI

7/5/16 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015269885 **Image available**

WPI Acc No: 2003-330814/200331

XRPX Acc No: N03-264918

Color management user interface controller for use in color management system, presents relation indicators indicating color relation between color entities represented by representations

Patent Assignee: COREL CORP (CORE-N)

Inventor: FORTIN R; FRANZBLAU D E; HASANAIN Y; KYRNYCHNYY V; MILLER R ; SAMMON S J

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030016230	A1	20030123	US 2001965237	A	20010927	200331 B
CA 2353390	A1	20030120	CA 2353390	A	20010720	200331

Priority Applications (No Type Date): CA 2353390 A 20010720

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20030016230	A1		16	G09G-005/02	
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CA 2353390	A1	E		G06F-003/00	
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Abstract (Basic): US 20030016230 A1

NOVELTY - A representation controller presents representation of each color entity. A relation indicator controller presents one or more relation indicators indicating color relation between the color entities represented by the representations.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) color management system;
- (2) color management assistant method;
- (3) computer program product for color management;
- (4) computer-readable memory element storing color management program; and
- (5) electronic signals for executing color management assistants method.

USE - Color management user interface controller for use in color management system.

ADVANTAGE - Allows users to easily manage colors of several color devices and color spaces.

DESCRIPTION OF DRAWING(S) - The figure shows the user interface.

pp; 16 DwgNo 5/20

Title Terms: COLOUR; MANAGEMENT; USER; INTERFACE; CONTROL; COLOUR;

MANAGEMENT; SYSTEM; PRESENT; RELATED; INDICATE; INDICATE; COLOUR; RELATED

; COLOUR; ENTITY; REPRESENT; REPRESENT

Derwent Class: P85; T01
International Patent Class (Main): G06F-003/00 ; G09G-005/02
International Patent Class (Additional): G06K-015/00; G06T-001/00;
G09G-005/06
File Segment: EPI; EngPI

7/5/17 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015078240 **Image available**
WPI Acc No: 2003-138758/200313
XRPX Acc No: N03-110091

Failed node shutdown method in clustered computer system, involves
shutting down jobs associated with failed node in one control group and
preemptively terminating associated jobs in other control groups

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: BLOCK T R; MILLER R ; THAYIB K

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020145983	A1	20021010	US 2001827804	A	20010406	200313 B
CA 2376351	A1	20021006	CA 2376351	A	20020312	200313

Priority Applications (No Type Date): US 2001827804 A 20010406

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020145983	A1		11	H04L-012/28	
CA 2376351	A1	E		G06F-011/00	

Abstract (Basic): US 20020145983 A1

NOVELTY - A failure in a particular node within clustered computer system, is detected by a cluster control group associated with the node. Jobs associated with the failed node, are shutdown to terminate clustering within the failed node. Jobs associated with the failed node in other cluster control groups, are preemptively terminated before detection of the failure by the groups.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Clustered failed node terminating apparatus;
- (2) Clustered computer system; and
- (3) Computer program product for terminating failed node.

USE - For shutting down failed nodes in clustered computer systems (claimed) in OS/400 clustering environment.

ADVANTAGE - By shutting down the operations associated with the failed node, dependency failovers are permitted to occur in an automated fashion. Also by preemptively terminating associated jobs in other cluster control groups, termination of clustering on the node is initiated in an orderly and efficient manner.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the clustered computer system.

pp; 11 DwgNo 1/3

Title Terms: FAIL; NODE; METHOD; CLUSTER; COMPUTER; SYSTEM; SHUT; DOWN; JOB
; ASSOCIATE; FAIL; NODE; ONE; CONTROL; GROUP; TERMINATE; ASSOCIATE; JOB;
CONTROL; GROUP

Derwent Class: T01

International Patent Class (Main): G06F-011/00 ; H04L-012/28

International Patent Class (Additional): G06F-015/16

File Segment: EPI

7/5/18 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015014850 **Image available**

WPI Acc No: 2003-075367/200307
XRPX Acc No: N03-058406

Group access method for clustered computer system, involves processing access request that identifies cluster-private group name of group to initiate group operation

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: MILLER R ; MOREY V L ; WILLIAMS L A

Number of Countries: 097 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020161768	A1	20021031	US 2001845596	A	20010430	200307 B
WO 200288992	A1	20021107	WO 2001US47260	A	20011211	200307

Priority Applications (No Type Date): US 2001845596 A 20010430

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020161768 A1 10 G06F-007/00

WO 200288992 A1 E G06F-017/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20020161768 A1

NOVELTY - An access request that identifies a cluster-private group name associated with a group is received on one node. The access request on the node is processed to initiate a group operation that map with the identified cluster group.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Group access apparatus;
- (2) Clustered computer system; and
- (3) Program product for group accessing.

USE - For accessing group in clustered computer system (claimed).

ADVANTAGE - Since the access request is processed, the external access to groups in clustered computer system is improved. Also unauthorized access of groups are prevented.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the sequence of accessing group in clustered computer system.

pp; 10 DwgNo 4/4

Title Terms: GROUP; ACCESS; METHOD; CLUSTER; COMPUTER; SYSTEM; PROCESS;
ACCESS; REQUEST; IDENTIFY; CLUSTER; PRIVATE; GROUP; NAME; GROUP; INITIATE
; GROUP; OPERATE

Derwent Class: T01; W01

International Patent Class (Main): G06F-007/00 ; G06F-017/00

File Segment: EPI

7/5/19 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015006568 **Image available**

WPI Acc No: 2003-067085/200306

XRPX Acc No: N03-052065

Node restarting method for clustered computer system, involves initiating restart of failing node by computer of secondary node, in response to membership change request

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: DERVIN J A; MILLER R ; MOREY V L ; THAYIB K

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133727	A1	20020919	US 2001809408	A	20010315	200306 B

Priority Applications (No Type Date): US 2001809408 A 20010315

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
 US 20020133727 A1 11 G06F-001/26
 CA 2372884 A1 E G06F-015/16

Abstract (Basic): US 20020133727 A1

NOVELTY - A membership change request is issued to a computer in the secondary node, by the computer in a failing node. A restart of the failing node is initiated by the computer of the secondary node, in response to the request.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Node restarting apparatus;
- (2) Clustered computer system; and
- (3) Program product for node restarting.

USE - For clustered computer system (claimed).

ADVANTAGE - Enables efficient and reliable node restart operations without operator intervention. Provides greater reliability, adaptability and improved system performance, by initiating restart of the failing node by the computer in the secondary node.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of clustered computer system.

pp; 11 DwgNo 1/4

Title Terms: NODE; RESTART; METHOD; CLUSTER; COMPUTER; SYSTEM; INITIATE; RESTART; FAIL; NODE; COMPUTER; SECONDARY; NODE; RESPOND; MEMBER; CHANGE; REQUEST

Derwent Class: T01

International Patent Class (Main): G06F-001/26 ; G06F-015/16

International Patent Class (Additional): G06F-001/28 ; G06F-001/30 ;

G06F-011/07

File Segment: EPI

7/5/20 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014985648 **Image available**

WPI Acc No: 2003-046163/200304

XRAM Acc No: C03-011698

XRPX Acc No: N03-036348

System for processing input data to generate output data for predicting intrinsic viscosity degradation of material, has output module for outputting output data having data about chemical product, function or service

Patent Assignee: BASSETT J G (BASS-I); BURGESS W J (BURG-I); DANTULURI S S (DANT-I); DICKERSON J P (DICK-I); DONELSON M E (DONE-I); FISCHER D P (FISC-I); GOLOB D J (GOLO-I); GONZALEZ H (GONZ-I); GOTT S L (GOTT-I); JACKSON W C (JACK-I); LYONS S L (LYON-I); MARSH S J (MARS-I); MERCER J W (MERC-I); MILLER R (MILL-I); QUILLEN B J (QUIL-I); STEWART M E (STEW-I); EASTMAN CHEM CO (EACH)

Inventor: BASSETT J G; BURGESS W J; DANTULURI S S; DICKERSON J P; DONELSON M E; FISCHER D P; GOLOB D J; GONZALEZ H; GOTT S L; JACKSON W C; LYONS S L; MARSH S J; MERCER J W; **MILLER R**; QUILLEN B J; STEWART M E; BASSETT J; BURGESS W; DANTULURI S; DICKERSON J; DONELSON M; FISCHER D; GOLOB D; GOTT S; JACKSON W; LYONS S; MARK S; MARSH S; MERCER J; QUILLEN B

Number of Countries: 097 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020129004	A1	20020912	US 2000247537	P	20001109	200304 B
			US 2001300510	P	20010622	
			US 200139482	A	20011109	
WO 200277900	A2	20021003	WO 2001US50348	A	20011109	200304

Priority Applications (No Type Date): US 200139482 A 20011109; US
2000247537 P 20001109; US 2001300510 P 20010622

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020129004	A1		98	G06F-007/00	Provisional application US 2000247537

Provisional application US 2001300510

WO 200277900 A2 E G06K-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

Abstract (Basic): US 20020129004 A1

NOVELTY - A system for processing input data to generate output data, has an input module for accepting input, a processing module and an output module for outputting output data to an user. The output data comprises data relating to a chemical product, function or service.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) method of generating output data useful for a specific purpose, which involves inputting data into the processing module and processing the input data to generate output data; and

(2) a computer-readable medium which has a computer executable instructions for processing data. The computer readable medium has a computer program code for receiving input data from a user and a computer program code for processing input data and generating output data.

USE - Used in chemical industry for calculating resin for coatings, inks and adhesive applications, for predicting standard adhesive properties for component blend, for predicting intrinsic viscosity degradation of material, for estimating portion costs of injection molded material, for calculating melt viscosity of material, for calculating theoretical strain which occurs when snap-fit latch if deflected, for calculating minimum coolant flow rate which is needed to achieve turbulent flow in component, for calculating oxygen ingress, for calculating inhibitor recommendation, for calculating plasticizer formulation, for calculating amount of anti-oxidant and for calculating solvent reformulation.

ADVANTAGE - The system facilitates commerce between and among members of chemical industry. The system helps customer in product selection, product design, and/or troubleshooting without utilizing human intervention. The system provides product design services to market their products and illustrates their product's use to customers. The system performs analysis and optimization without manual intervention.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram illustrating the input and output of the polyester resin calculation using the system for processing input data to generate output data.

pp; 98 DwgNo 3A/20

Title Terms: SYSTEM; PROCESS; INPUT; DATA; GENERATE; OUTPUT; DATA; PREDICT;
INTRINSIC; VISCOSITY; DEGRADE; MATERIAL; OUTPUT; MODULE; OUTPUT; OUTPUT;
DATA; DATA; CHEMICAL; PRODUCT; FUNCTION; SERVICE

Derwent Class: A31; A89; T01

International Patent Class (Main): G06F-007/00 ; G06K-000/00

File Segment: CPI; EPI

7/5/21 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014768831 **Image available**

WPI Acc No: 2002-589535/200263

XRPX Acc No: N02-467784

Peer protocol status determination method for clustered computer system,
involves providing tracked protocol progress information of each member
in response to query directed to selected member

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: MILLER R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020073153	A1	20020613	US 2000732189	A	20001207	200263 B

Priority Applications (No Type Date): US 2000732189 A 20001207

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020073153	A1		10	G06F-015/16	

Abstract (Basic): US 20020073153 A1

NOVELTY - Protocol progress information of each member of a group in a clustered computer system, is locally tracked. The tracked progress information is transmitted in response to a query directed to the selected members.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Protocol status determination apparatus;
- (2) Clustered computer system;
- (3) Computer program product for peer protocol status determination.

USE - For determining peer protocol status in clustered computer system (claimed).

ADVANTAGE - Faults in the clustered computer system are monitored easily.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating the program flow of the acknowledgement message reception routine executed by a node to locally track the protocol progress information of a clustered computer system.

pp; 10 DwgNo 5/6

Title Terms: PEER; PROTOCOL; STATUS; DETERMINE; METHOD; CLUSTER; COMPUTER; SYSTEM; TRACK; PROTOCOL; PROGRESS; INFORMATION; MEMBER; RESPOND; QUERY; DIRECT; SELECT; MEMBER

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/16

File Segment: EPI

7/5/22 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014737452 **Image available**

WPI Acc No: 2002-558156/200259

XRPX Acc No: N02-441808

Intelligent document linking system e.g. for Internet, which creates hypertext links for any select or all proper nouns in an Internet document within the observed site, prior to displaying the document or page to the user

Patent Assignee: HEPP D (HEPP-I); KASSAL P (KASS-I); LAFAVERS D (LAFA-I); MILLER R (MILL-I); PROQUEST CO (PROQ-N)

Inventor: HEPP D; KASSAL P; LAFAVERS D; MILLER R ; HEPP D

Number of Countries: 021 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200261627	A2	20020808	WO 2002US2655	A	20020130	200259 B
US 20020143808	A1	20021003	US 2001774515	A	20010131	200267

Priority Applications (No Type Date): US 2001774515 A 20010131

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200261627	A2	E	26	G06F-017/30	

. Designated States (National): CA
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE TR
US 20020143808 A1 G06F-015/00

Abstract (Basic): WO 200261627 A2

NOVELTY - System creates hypertext links for all or select proper nouns found in a document or web page on the Internet or world wide web. The system identifies key terms in a requested document or web page, such as a person or company name, cities, states, and other proper nouns within the natural language text, and marks these terms as hypertext links which when selected offer additional information for that item obtained from information collected and maintained in a knowledge base.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: method of creating hyperlinks

USE - For Internet.

ADVANTAGE - Eliminates the need for having to leave the site and initiate a new search or condensing the current one.

DESCRIPTION OF DRAWING(S) - The diagram shows the invention

Apache web server/cache and security (13)

proxy server (14)

link engine (16)

pp; 26 DwgNo 1/5

Title Terms: INTELLIGENCE; DOCUMENT; LINK; SYSTEM; LINK; SELECT; PROPER;

DOCUMENT; OBSERVE; SITE; PRIOR; DISPLAY; DOCUMENT; PAGE; USER

Derwent Class: T01

International Patent Class (Main): G06F-015/00 ; G06F-017/30

File Segment: EPI

7/5/23 (Item 18 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014179061 **Image available**

WPI Acc No: 2001-663289/200176

XRPX Acc No: N01-494202

Dental treatment planning system for orthodontists, validates dental patient data input in predetermined sequence

Patent Assignee: ALIGN TECHNOLOGY INC (ALIG-N)

Inventor: KUO E; MILLER R ; TROSIEN A

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200182192	A1	20011101	WO 2001US13277	A	20010424	200176 B
AU 200155655	A	20011107	AU 200155655	A	20010424	200219

Priority Applications (No Type Date): US 2000557382 A 20000425

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200182192 A1 E 45 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200155655 A G06F-017/60 Based on patent WO 200182192

Abstract (Basic): WO 200182192 A1

NOVELTY - An engine receives input dental patient data and validates the patient data in a predetermined sequence.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Virtual health care treatment system;

(b) Dental treatment planning method

USE - For treating professionals such as dentists, orthodontists, oral surgeons.

ADVANTAGE - Since the engine receives and validates patient data, accuracy and validity of diagnosis and treatment plan are improved, conflicting diagnoses are eliminated, better plan is redeveloped using data, placement of implantations are visualized, cost and delay are reduced.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of dental treatment planning process.

pp; 45 DwgNo 4/10

Title Terms: DENTAL; TREAT; PLAN; SYSTEM; VALID; DENTAL; PATIENT; DATA;

INPUT; PREDETERMINED; SEQUENCE

Derwent Class: S05; T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

7/5/24 (Item 19 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014080375 **Image available**

WPI Acc No: 2001-564589/200163

Related WPI Acc No: 2003-743540

XRPX Acc No: N01-420282

Task sharing apparatus for networked computer systems, has job which processes the protocol to determine the received message without using any timer

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: MILLER R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010013057	A1	20010809	US 99421585	A	19991020	200163 B
			US 99438207	A	19991112	
			US 2001780196	A	20010209	

Priority Applications (No Type Date): US 2001780196 A 20010209; US 99421585 A 19991020; US 99438207 A 19991112

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20010013057	A1		17	G06F-015/16	CIP of application US 99421585 CIP of application US 99438207

Abstract (Basic): US 20010013057 A1

NOVELTY - A memory stores the job, which processes the protocol having data message and acknowledge (ACK) round. The job functions according to the receiver logic uses ACK round having a time bench mark for determining that the received message without using any timer.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Computer implemented method for processing protocol;
- (b) Program product;
- (c) Networked computer system

USE - For use in networked computer systems (claimed) e.g. for internet, LAN, WAN.

ADVANTAGE - The receiver can receive message without using timers, since protocol and receiver logic are defined in particular way.

DESCRIPTION OF DRAWING(S) - The figure shows the flow diagram explaining the method for processing the protocol in pre-ACK case.

pp; 17 DwgNo 14/15

Title Terms: TASK; SHARE; APPARATUS; COMPUTER; SYSTEM; JOB; PROCESS;

PROTOCOL; DETERMINE; RECEIVE; MESSAGE; TIME

Derwent Class: T01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-015/173

File Segment: EPI

7/5/25 (Item 20 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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012152054 **Image available**
 WPI Acc No: 1998-568966/199848
 XRPX Acc No: N98-442632

Remote radio monitoring and control system for street lamps - has sensing unit on lamp to control switching and monitor operation and transceiver for status and control information

Patent Assignee: AL AIR DATA INC (ALAI-N); AL AIRDATA INC (ALAI-N); WILLIAMS L (WILL-I)

Inventor: WILLIAMS L ; YOUNG M F; JONES H V

Number of Countries: 080 Number of Patents: 017

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9847120	A1	19981022	WO 98US7498	A	19980415	199848	B
AU 9874664	A	19981111	AU 9874664	A	19980415	199912	
US 6035266	A	20000307	US 97838303	A	19970416	200019	
US 6119076	A	20000912	US 97838302	A	19970416	200046	
US 20020002444	A1	20020103	US 97838303	A	19970416	200207	
			US 99465795	A	19991217		
US 6359555	B1	20020319	US 97838302	A	19970416	200224	
			US 97838303	A	19970416		
			US 97942681	A	19971002		
US 6370489	B1	20020409	US 97838303	A	19970416	200227	
			US 99465795	A	19991217		
			US 2000576545	A	20000522		
US 6384722	B1	20020507	US 97838302	A	19970416	200235	
			US 97838303	A	19970416		
			US 97942681	A	19971002		
			US 2000637916	A	20000814		
US 6393381	B1	20020521	US 97838302	A	19970416	200239	
			US 2000501274	A	20000209		
US 6393382	B1	20020521	US 97838303	A	19970416	200239	
			US 99465795	A	19991217		
			US 2000575531	A	20000522		
US 6415245	B2	20020702	US 97838303	A	19970416	200248	
			US 99465795	A	19991217		
US 20020103621	A1	20020801	US 97838302	A	19970416	200253	
			US 97838303	A	19970416		
			US 97942681	A	19971002		
			US 2002100091	A	20020319		
US 6456960	B1	20020924	US 97838302	A	19970416	200266	
			US 2000501274	A	20000209		
			US 2000605027	A	20000628		
US 20020161556	A1	20021031	US 2000576545	A	20000522	200279	N
			US 2002118324	A	20020409		
US 20030020417	A1	20030130	US 2000605027	A	20000628	200311	N
			US 2002251756	A	20020923		
US 6604062	B2	20030805	US 2000576545	A	20000522	200353	N
			US 2002118324	A	20020409		
US 6636150	B2	20031021	US 97838302	A	19970416	200370	
			US 97838303	A	19970416		
			US 97942681	A	19971002		
			US 2002100091	A	20020319		

Priority Applications (No Type Date): US 97942681 A 19971002; US 97838302 A 19970416; US 97838303 A 19970416; US 99465795 A 19991217; US 2000576545 A 20000522; US 2000637916 A 20000814; US 2000501274 A 20000209; US 2000575531 A 20000522; US 2002100091 A 20020319; US 2000605027 A 20000628 ; US 2002118324 A 20020409; US 2002251756 A 20020923

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9847120	A1	E 113	G08C-019/04	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA
UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9874664	A		Based on patent WO 9847120
US 6035266	A	H04L-029/02	
US 6119076	A	G08B-019/00	
US 20020002444	A1	G06F-015/00	Div ex application US 97838303 Div ex patent US 6035266
US 6359555	B1	G08B-029/00	CIP of application US 97838302 CIP of application US 97838303 CIP of patent US 6035266 CIP of patent US 6119076
US 6370489	B1	H04L-029/02	Div ex application US 97838303 Div ex application US 99465795 Div ex patent US 6035266
US 6384722	B1	G08B-029/00	CIP of application US 97838302 CIP of application US 97838303 Cont of application US 97942681 CIP of patent US 6035266 CIP of patent US 6119076
US 6393381	B1	H04L-029/02	Div ex application US 97838302 Div ex patent US 6119076
US 6393382	B1	H04L-029/02	Div ex application US 97838303 Div ex application US 99465795 Div ex patent US 6035266
US 6415245	B2	G08B-019/00	Div ex application US 97838303 Div ex patent US 6035266
US 20020103621	A1	G21C-017/00	CIP of application US 97838302 CIP of application US 97838303 Cont of application US 97942681 CIP of patent US 6035266 CIP of patent US 6119076 Cont of patent US 6359555
US 6456960	B1	G08B-019/00	Div ex application US 97838302 Div ex application US 2000501274 Div ex patent US 6119076
US 20020161556	A1	G06F-011/00	Cont of application US 2000576545 Cont of patent US 6370489
US 20030020417	A1	H01J-017/36	Cont of application US 2000605027 Cont of patent US 6456960
US 6604062	B2	G08B-019/00	Cont of application US 2000576545 Cont of patent US 6370489
US 6636150	B2	G08B-029/00	CIP of application US 97838302 CIP of application US 97838303 Cont of application US 97942681 CIP of patent US 6035266 CIP of patent US 6119076 Cont of patent US 6359555

Abstract (Basic): WO 9847120 A

The control system is used on street lamps to both switch them on and off, and to monitor their operational status. The street lamps are provided with a processing and sensing unit (412) that plugs into the lamp via a conventional twist lock three pronged plug. The processing unit provides for switching of power lines (280a,280b) to the street light power lines (280c,280d).

The processor can have a number of sensors. A light sensor (518) is used to control on/off switching due to ambient light levels. Other sensors can monitor the voltage and current supply to the lights. A radio transceiver (414,416) provides a status and control link via base stations.

ADVANTAGE - Provides centralised control and monitoring of street lights over large geographical areas.

Dwg.5/27

Title Terms: REMOTE; RADIO; MONITOR; CONTROL; SYSTEM; STREET; LAMP; SENSE;
UNIT; LAMP; CONTROL; SWITCH; MONITOR; OPERATE; TRANSCEIVER; STATUS;
CONTROL; INFORMATION
Derwent Class: W05; X26
International Patent Class (Main): G06F-011/00 ; G06F-015/00 ;
G08B-019/00; G08B-029/00; G08C-019/04; G21C-017/00; H01J-017/36;
H04L-029/02
International Patent Class (Additional): G08B-025/00; H01J-011/04
File Segment: EPI

7/5/26 (Item 21 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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012125980 **Image available**
WPI Acc No: 1998-542892/199846
XRPX Acc No: N98-422585

Modem that operates without separate controller for computer - has
virtual device driver, interfaced to operating system for managing
communications over communications port and is utilised to provide
adequate processing time ensuring modem functionality
Patent Assignee: CIRRRUS LOGIC INC (CIRRR-N); BADER J (BADE-I); DEANS S
(DEAN-I); MILLER R (MILL-I); TARQUINI R P (TARQ-I); WANI B (WANI-I);
WATERS J (WATE-I); INTEL CORP (ITLC)
Inventor: BADER J; DEANS S; MILLER R ; TARQUINI R P; WANI B; WATERS J;
BADER J E
Number of Countries: 025 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9844425	A1	19981008	WO 98US6385	A	19980331	199846 B
EP 972248	A1	20000119	EP 98914387	A	19980331	200009
			WO 98US6385	A	19980331	
TW 436711	A	20010528	TW 98104842	A	19980331	200172
JP 2001519060	W	20011016	JP 98541951	A	19980331	200176
			WO 98US6385	A	19980331	
US 20010052026	A1	20011213	US 97832622	A	19970331	200204
US 6353857	B2	20020305	US 97832622	A	19970331	200224

Priority Applications (No Type Date): US 97832622 A 19970331

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9844425	A1	E	27	G06F-013/10	
					Designated States (National): CA CN IL JP KR SG
					Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
EP 972248	A1	E		G06F-013/10	Based on patent WO 9844425
					Designated States (Regional): DE FR GB NL
TW 436711	A			G06F-015/76	
JP 2001519060	W		28	G06F-013/10	Based on patent WO 9844425
US 20010052026	A1			G06F-015/16	
US 6353857	B2			G06F-015/16	

Abstract (Basic): WO 9844425 A

The system includes processor, an operating system running on the
processor, and a virtual device driver, interfaced to the operating
system, providing modem functionality for managing communications over
a communications port. The virtual device driver is utilised to provide
adequate processing time ensuring modem functionality. The processing
time is controllable as to at least one of a frequency with which a
slice of processing time is made available and a duration of the slice
of processing time. The modem functionality includes at least one of
fax services, voice services and data services. The virtual device
driver is implemented in layers, including at least three of an
operating system interface layer, a UART layer, a module layer, a
module i/o layer, an interrupt layer and a physical layer. The virtual
device driver includes a software layer emulating UART to UART

. communications.

Dwg.3/6

Title Terms: MODEM; OPERATE; SEPARATE; CONTROL; COMPUTER; VIRTUAL; DEVICE;
DRIVE; INTERFACE; OPERATE; SYSTEM; MANAGE; COMMUNICATE; COMMUNICATE; PORT
; UTILISE; ADEQUATE; PROCESS; TIME; ENSURE; MODEM; FUNCTION

Derwent Class: T01

International Patent Class (Main): G06F-013/10 ; G06F-015/16 ;
G06F-015/76

International Patent Class (Additional): G06F-009/00 ; G06F-009/46

File Segment: EPI

7/5/27 (Item 22 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010382572 **Image available**

WPI Acc No: 1995-283886/199537

XRPX Acc No: N95-216026

IC microcontroller for anti lock braking system - has main system clock
monitored for correct performance and when failure occurs use is made of
simple back up clock circuit to shut down system

Patent Assignee: NAT SEMICONDUCTOR CORP (NASC)

Inventor: MILLER R

Number of Countries: 003 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9521412	A1	19950810	WO 94US11586	A	19941012	199537 B
EP 742919	A1	19961120	EP 94931824	A	19941012	199651
			WO 94US11586	A	19941012	

Priority Applications (No Type Date): US 94191823 A 19940202

Cited Patents: 1.Jnl.Ref; US 4667328

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9521412	A1	E	68	G06F-011/16	
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EP 742919	A1	E	1	G06F-011/16	Based on patent WO 9521412
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Designated States (Regional): DE FR GB

Abstract (Basic): WO 9521412 A

The microprocessor includes a backup clock circuit. The anti-lock
braking system has a microprocessor and other systems driven from a
system clock. This clock is input (510) to a clock monitor (520) that
checks whether it conforms to the correct frequency and voltage ranges.

A backup clock (540) is provided. This is formed as a ring circuit
of an odd number of invertors and can be fabricated entirely on a
silicon chip. A multiplexer circuit (530) accepts a signal from the
clock monitor and outputs (550) either the main clock or the backup
clock.

ADVANTAGE - Allows anti-lock braking system to be brought to safe
state using low cost backup clock circuit.

Dwg.5/9

Title Terms: IC; ANTI; LOCK; BRAKE; SYSTEM; MAIN; SYSTEM; CLOCK; MONITOR;
CORRECT; PERFORMANCE; FAIL; OCCUR; MADE; SIMPLE; BACK; UP; CLOCK; CIRCUIT
; SHUT; DOWN; SYSTEM

Derwent Class: Q18; T01; U13; X22

International Patent Class (Main): G06F-011/16

International Patent Class (Additional): B60T-008/88; G06F-001/04

File Segment: EPI; EngPI

7/5/28 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009932293 **Image available**

WPI Acc No: 1994-200004/199424

XRPX Acc No: N94-157377

**Video gaming system for lottery games - has slave terminals enabling
players to simultaneously request game plays from fixed pool stored in
master processing unit**

Patent Assignee: INFINATIONAL TECHNOLOGIES INC (INFI-N); OASIS TECHNOLOGIES
INC (OASI-N)

Inventor: DIETZ M J; **MILLER R** ; MORRIS E D; MILLER R A

Number of Countries: 046 Number of Patents: 014

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9412256	A1	19940609	WO 93US11624	A	19931130	199424 B
US 5324035	A	19940628	US 91801801	A	19911202	199425
			US 92988429	A	19921201	
AU 9457333	A	19940622	AU 9457333	A	19931130	199436
EP 627949	A1	19941214	WO 93US11624	A	19931130	199503
			EP 94903363	A	19931130	
EP 627949	A4	19950726	EP 94903363	A		199617
EP 907136	A1	19990407	EP 94903363	A	19931130	199918
			EP 98203851	A	19931130	
CA 2128715	C	19990323	CA 2128715	A	19931130	199930
EP 627949	B1	19990804	WO 93US11624	A	19931130	199935
			EP 94903363	A	19931130	
			EP 98203851	A	19931130	
MX 187238	B	19971202	MX 937588	A	19931201	199936
DE 69325898	E	19990909	DE 625898	A	19931130	199943
			WO 93US11624	A	19931130	
			EP 94903363	A	19931130	
ES 2136187	T3	19991116	EP 94903363	A	19931130	200001
EP 907136	B1	20010926	EP 94903363	A	19931130	200157
			EP 98203851	A	19931130	
DE 69330843	E	20011031	DE 630843	A	19931130	200173
			EP 98203851	A	19931130	
ES 2166130	T3	20020401	EP 98203851	A	19931130	200233

Priority Applications (No Type Date): US 92988429 A 19921201; US 91801801 A
19911202

Cited Patents: GB 2147773; GB 2148135; US 4467424; US 4689742; US 4856787;
US 5042809; No-Citns.

Patent Details:

Patent No	Kind	Lang	Pg	Main IPC	Filing Notes
WO 9412256	A1	E	80	A63F-009/24	
Designated States (National): AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA VN					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE					
US 5324035	A		28	A63F-001/00	CIP of application US 91801801
AU 9457333	A			A63F-009/24	Based on patent WO 9412256
EP 627949	A1	E	2	A63F-009/24	Based on patent WO 9412256
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
EP 627949	A4			A63F-009/24	
EP 907136	A1	E		G06F-019/00	Div ex application EP 94903363 Div ex patent EP 627949
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
CA 2128715	C			A63F-009/24	
EP 627949	B1	E		A63F-009/24	Related to application EP 98203851 Related to patent EP 907136 Based on patent WO 9412256
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
MX 187238	B			A63F-009/024	
DE 69325898	E			A63F-009/24	Based on patent EP 627949 Based on patent WO 9412256
ES 2136187	T3			A63F-009/24	Based on patent EP 627949
EP 907136	B1	E		G06F-019/00	Div ex application EP 94903363 Div ex patent EP 627949

. Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC
NL PT SE

DE 69330843 E G06F-019/00 Based on patent EP 907136

ES 2166130 T3 G06F-019/00 Based on patent EP 907136

Abstract (Basic): WO 9412256 A

The system includes a master processing unit (14) storing at least one fixed pool of game plays. Each fixed pool includes a predetermined number of winning plays. Several slave terminals (16) are each coupled (20), pref. by LAN, to the master processing unit. Each slave terminal has a player controlled selection device, which operates to request games from the fixed pool.

Several players can simultaneously use the selection to purchase game plays from the pool. A central processor may generate the pools and supply them to several master processing units via a telephone link.

ADVANTAGE - Accessible to large number of people. Games can incorporate competition with other players to encourage skill and provoke excitement.

Dwg.1/29

Title Terms: VIDEO; GAME; SYSTEM; LOTS; GAME; SLAVE; TERMINAL; ENABLE; PLAY
; SIMULTANEOUS; REQUEST; GAME; PLAY; FIX; POOL; STORAGE; MASTER; PROCESS;
UNIT

Derwent Class: P36; T01; T05; W04

International Patent Class (Main): A63F-001/00; A63F-009/024; A63F-009/24;

G06F-019/00

International Patent Class (Additional): A63F-009/22; **G06F-017/00**

File Segment: EPI; EngPI

7/5/29 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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008771794 **Image available**

WPI Acc No: 1991-275809/199138

XRPX Acc No: N91-210692

**Hardware implements texture mapping gradient calculator method -
performing majority of map gradient calculations once per polygon to
increase processing speed in graphics system**

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: **MILLER R** ; SWANSON R; MILLER R H; SWANSON R W

Number of Countries: 004 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 447222	A	19910918	EP 91302146	A	19910314	199138 B
US 5224208	A	19930629	US 90494708	A	19900316	199327
EP 447222	A3	19930602	EP 91302146	A	19910314	199404

Priority Applications (No Type Date): US 90494708 A 19900316

Cited Patents: NoSR.Pub; EP 144924

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 447222	A				
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Designated States (Regional): DE FR GB

US 5224208	A	12	G06F-015/72
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Abstract (Basic): EP 447222 A

The method of calculates one texture map gradient at each display point. Texture values are identified for each vortex of an input polygon and are linearly interpolated over the polygon in perspective space to find corresponding values at each pixel within the polygon. Texture gradients are then calculated by defining vectors parallel and perpendicular to the horizon of the plane containing the polygon.

A texture map is accessed to determine the pre-filtered texture value for each point.

ADVANTAGE - Removes artifacts in texture mapped image at low cost

. and high speed. (13pp Dwg.No.1/3)
Title Terms: HARDWARE; IMPLEMENT; TEXTURE; MAP; GRADIENT; CALCULATE; METHOD
; PERFORMANCE; MAJORITY; MAP; GRADIENT; CALCULATE; PER; POLYGONAL;
INCREASE; PROCESS; SPEED; GRAPHIC; SYSTEM
Derwent Class: T01
International Patent Class (Main): **G06F-015/72**
File Segment: EPI

7/5/30 (Item 25 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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008388294 **Image available**
WPI Acc No: 1990-275295/199036
XRPX Acc No: N90-212896

**Text to speech synthesis system - has parameter generator that converts
formant allophone data derived from code book tables**
Patent Assignee: CENTIGRAM COMMUNICATIONS CORP (CENT-N); MALSHEEN B J
(MALS-I); SPEECH PLUS INC (SPEE-N)
Inventor: GRONER G F; MALSHEEN B J; WILLIAMS L D; GRONER G; **WILLIAMS L**
Number of Countries: 015 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9009657	A	19900823				199036 B
US 4979216	A	19901218	US 89312692	A	19890217	199102
EP 458859	A	19911204	EP 90903452	A	19900202	199149
EP 458859	A4	19920520	EP 90903452	A	19900000	199522
EP 458859	B1	19970730	EP 90903452	A	19900202	199735
			WO 90US528	A	19900202	
DE 69031165	E	19970904	DE 631165	A	19900202	199741
			EP 90903452	A	19900202	
			WO 90US528	A	19900202	

Priority Applications (No Type Date): US 89312692 A 19890217
Cited Patents: US 4627001; US 4831654; 4.Jnl.Ref
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9009657	A				
					Designated States (National): CA JP
					Designated States (Regional): AT BE CH DE DK ES FR GB IT LU NL SE
EP 458859	A				
					Designated States (Regional): DE GB
EP 458859	B1	E	30	G10L-005/04	Based on patent WO 9009657
					Designated States (Regional): DE GB
DE 69031165	E			G10L-005/04	Based on patent EP 458859
					Based on patent WO 9009657

Abstract (Basic): WO 9009657 A

The text-to-speech synthesiser reads the text and uses the spelling to generate phonemes where appropriate, but uses a dictionary look-up where the spelling is misleading. The consonant allophones are generated in the usual way but the vowels also have their allophones chosen by their context. All known allophones for a given language are stored in a dictionary.

The storage is done by means of formant parameters to give efficient use of the memory, and the particular allophone to be used for a vowel is obtd. by computer-operated rules from the phoneme context. The resulting parameter string is fed to speech synthesis output.

ADVANTAGE - By choosing vowel as well as formant allophones the synthetic speech is made to sound more natural. (50pp Dwg.No.7/11)

Title Terms: TEXT; SPEECH; SYNTHESIS; SYSTEM; PARAMETER; GENERATOR; CONVERT
; FORMANT; ALLOPHONE; DATA; DERIVATIVE; CODE; BOOK; TABLE
Derwent Class: P86; T01; W04
International Patent Class (Main): G10L-005/04
International Patent Class (Additional): **G06F-015/34** ; G10L-005/00
File Segment: EPI; EngPI

7/5/31 (Item 26 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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007866880

WPI Acc No: 1989-131992/198918

XRPX Acc No: N89-100517

**Interface circuit between logic semiconductor and Ga-As semiconductor -
employs compliant voltage shifters, each incorporating capacitor with
sink and shunt resistors, and feedback**

Patent Assignee: GIGABIT LOGIC INC (GIGA-N)

Inventor: CLARK J E; EDEN R C; FIEDLER A S; LEE F S C; MILLER R

Number of Countries: 015 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 314476	A	19890503	EP 88310114	A	19881027	198918 B
JP 2001611	A	19900105	JP 88271908	A	19881027	199007
US 4970413	A	19901113	US 87113944	A	19871028	199048

Priority Applications (No Type Date): US 87113944 A 19871028

Cited Patents: 2.Jnl.Ref; A3...8941; EP 110701; GB 2166312; No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 314476	A	E	12		
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Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

Abstract (Basic): EP 314476 A

The logic inputs of a GaAs IC are stabilised at levels compatible with ECL silicon ICs by use of compliant voltage shifters. The latter empty a diode capacitor reverse biased by a current sink trickle current and a parallel diode with series and shunt resistors. Such voltage shifters (34) are provided for all the logic inputs and for an extra input (18) held at a potential VBB. The shifters are biased by identical FETs having the same gate potential (VFET). The threshold voltages of all the inputs are maintained at the value VBB by a feedback circuit. The latter includes cascaded input and internal gates (40, 42) and a filter (51, 53) to inhibit oscillation.

USE - Provides a stable interface between ECL and GaAs ICs despite temperature and power supply fluctuation.

2/19

Title Terms: INTERFACE; CIRCUIT; LOGIC; SEMICONDUCTOR; SEMICONDUCTOR;
EMPLOY; COMPLIANT; VOLTAGE; SHIFT; INCORPORATE; CAPACITOR; SINK; SHUNT;
RESISTOR; FEEDBACK

Derwent Class: U21

International Patent Class (Additional): G06F-007/38 ; H03K-003/01;

H03K-017/16; H03K-019/00

File Segment: EPI

7/5/32 (Item 27 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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007586466 **Image available**

WPI Acc No: 1988-220398/198831

XRPX Acc No: N88-168045

**Digital logic equipment with redundant devices - has synchronism-checking
device to detect absence of synchronism during comparable operations**

Patent Assignee: STRATUS COMPUTER INC (STRA-N)

Inventor: WILLIAMS L ; WILLIAMS J L

Number of Countries: 013 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8805572	A	19880728	WO 88US66	A	19880114	198831 B
AU 8811882	A	19880810				198845

EP 349539	A	19900110	EP 88901357	A	19880114	199002
JP 2502315	W	19900726				199036
US 5020024	A	19910528	US 873732	A	19870116	199124
EP 349539	B1	19930407	EP 88901357	A	19880114	199314
			WO 88US66	A	19880114	
DE 3880132	G	19930513	DE 3880132	A	19880114	199320
			EP 88901357	A	19880114	
			WO 88US66	A	19880114	

Priority Applications (No Type Date): US 873732 A 19870116

Cited Patents: No-SR.Pub; DE 2636352; EP 75278; US 3864670; US 4251873; US 4358823; WO 8504498

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 8805572	A	E	29		
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Designated States (National): AU JP

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

EP 349539	A	E			
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Designated States (Regional): AT BE DE FR GB IT LU NL SE

EP 349539	B1	E	15	G06F-011/16	Based on patent WO 8805572
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Designated States (Regional): AT BE DE FR GB IT LU NL SE

DE 3880132	G			G06F-011/16	Based on patent EP 349539
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Based on patent WO 8805572

Abstract (Basic): EP 349539 A

In digital logic apparatus (10) having a clock element (16) and having first and second digital processors (12,14) arranged for normally operating concurrently with corresponding logic operation and with selected synchronism relative to said clock element (16), the improvement comprising means (22;42,43,44) for detecting corresponding logic operation of said first and second processors, and failure detecting means (22) in circuit with said means (22;42,43,44) for detecting corresponding logic operation with said clock element and with said first and second processors, and detecting the absence of said synchronism during corresponding logic operation of said first and second processors (12,14). (Dwg.1/4)

WO 8805572 A

If the two processors become unsynchronised because, for example, on receives an additional false clock signal or fails to respond to a timing signal, each processor can continue to produce a pair of synchronised T-out signals from respective flip-flops. However, the C-OK signals and D-OK signals on conductors through true are out of synchronism because of the lack of lock-step synchronism between the processors.

The respective exclusive OR gate no longer produces a signal representing agreement between C, D signals.

ADVANTAGE - Loss of prescribed synchronism in operation of two or more digital logic devices is able to be detected even when each is indicating that it is operating correctly, improved fault tolerance.

1/4

Title Terms: DIGITAL; LOGIC; EQUIPMENT; REDUNDANT; DEVICE; SYNCHRONISATION; CHECK; DEVICE; DETECT; ABSENCE; SYNCHRONISATION; COMPARE; OPERATE

Index Terms/Additional Words: CPU

Derwent Class: T01

International Patent Class (Main): G06F-011/16

International Patent Class (Additional): G06F-001/04 ; G06F-015/16

File Segment: EPI

Set	Items	Description
S1	40986	AU=(MILLER, R? OR MILLER R? OR MOREY, V? OR MOREY V? OR TH- AYIB, K? OR THAYIB K? OR WILLIAMS, L? OR WILLIAMS L?)
S2	213	S1 AND COMPUTER(1W)SYSTEM?
S3	0	S1 AND CLUSTER?()COMPUTER()SYSTEM? ?
File	2:INSPEC	1969-2003/Nov W3 (c) 2003 Institution of Electrical Engineers
File	6:NTIS	1964-2003/Nov W4 (c) 2003 NTIS, Intl Cpyrghrt All Rights Res
File	8:EI Compendex(R)	1970-2003/Nov W3 (c) 2003 Elsevier Eng. Info. Inc.
File	34:SciSearch(R)	Cited Ref Sci 1990-2003/Nov W3 (c) 2003 Inst for Sci Info
File	35:Dissertation Abs Online	1861-2003/Oct (c) 2003 ProQuest Info&Learning
File	65:Inside Conferences	1993-2003/Nov W3 (c) 2003 BLDSC all rts. reserv.
File	92:IHS Intl.Stds.& Specs.	1999/Nov (c) 1999 Information Handling Services
File	94:JICST-EPlus	1985-2003/Nov W4 (c)2003 Japan Science and Tech Corp(JST)
File	95:TEME-Technology & Management	1989-2003/Nov W1 (c) 2003 FIZ TECHNIK
File	99:Wilson Appl. Sci & Tech Abs	1983-2003/Oct (c) 2003 The HW Wilson Co.
File	103:Energy SciTec	1974-2003/Nov B1 (c) 2003 Contains copyrighted material
File	144:Pascal	1973-2003/Nov W3 (c) 2003 INIST/CNRS
File	202:Info. Sci. & Tech. Abs.	1966-2003/Nov 17 (c) 2003 EBSCO Publishing
File	233:Internet & Personal Comp. Abs.	1981-2003/Jul (c) 2003, EBSCO Pub.
File	239:Mathsci	1940-2003/Dec (c) 2003 American Mathematical Society
File	275:Gale Group Computer DB(TM)	1983-2003/Nov 21 (c) 2003 The Gale Group
File	434:SciSearch(R)	Cited Ref Sci 1974-1989/Dec (c) 1998 Inst for Sci Info
File	647:CMP Computer Fulltext	1988-2003/Nov W3 (c) 2003 CMP Media, LLC
File	674:Computer News Fulltext	1989-2003/Nov W2 (c) 2003 IDG Communications
File	696:DIALOG Telecom. Newsletters	1995-2003/Nov 21 (c) 2003 The Dialog Corp.

Set	Items	Description
S1	3058100	ORGANIZ? OR ORGANIS? OR CLASSIF? OR GROUP? OR CATEGOR? OR - ARRANGE? OR ORDER?
S2	1967925	MULTIPL? OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL OR DUPL- ICATE OR UNLIMITED
S3	3019751	MEMBER? OR CLIENT? OR STAND()ALONE? OR STANDALONE? OR PC OR COMPUTER? OR WORKSTATION? OR WORK()STATION? OR NODE? OR TERM- INAL? OR PROCESSOR? OR RESOURCE?
S4	1308618	SUBGROUP? OR SUB()GROUP? OR CLUSTER? OR ALLOCATION()UNIT? - OR GROUP? OR COLLECT?
S5	1567843	LEADER? OR CONDUCTOR? OR DIRECTOR? OR GUIDE? OR MASTER? OR LEAD? ? OR PILOT?
S6	21	CLUSTER()COMPUTER()SYSTEM? ?
S7	3968527	DETERMIN? OR ASSIGN? OR APPOINT? OR SELECT? OR PICK? OR CH- OOSE OR CHOICE OR ELECT? ? OR SPECIF? OR DESIGNAT? OR DENOT? - OR APPOINT? OR NOMINAT? OR STIPULAT? OR DECID?
S8	94191	(TRANSMIT? OR TRANSFER? OR READ? OR WRITE? ? OR WRITING OR TRANSFER? OR TRANSMISSION OR DELIVER? OR HANDOVER OR TURNOVER OR (HAND? OR TURN?) () (IN OR OVER) OR SEND?) ()DATA
S9	3350773	PERFORM? OR TRANSACT? OR EXECUT? OR DISCHARG? OR ACCOMPLIS- H? OR COMPLET? OR CARRY?()OUT OR FULFILL?
S10	636400	RESPONSE? OR ANSWER? OR ACKNOWLEDG? OR REPLY OR REPLIES OR RESPOND? OR HANDSHAKE? OR REPLY? OR REPLIES OR FEEDBACK OR FE- ED()BACK
S11	2762313	DETECT? OR DETERMIN? OR RECOGNI? OR INTERROGAT? OR VERIFY? OR AUTHENTICAT? OR VALIDAT? OR JUDGE? OR IDENTIFY?
S12	1015806	FAILED OR DEFECT? OR FAILURE? OR FAULT? OR MALFUNCTION? OR DEFAULT? OR DETERIORATION OR DEGRADATION OR ERROR? OR INVALID OR INOPERATIVE OR BAD
S13	311404	REPEAT??? OR REDO??? OR REPETITION OR DUPLICAT?
S14	134	(NON OR "NO" OR "NOT") () (S12 (2N) S3)
S15	24506	S1 AND (S2 (3N) S3)
S16	247088	S7 AND S5
S17	796	S15 AND S16
S18	20	S7 AND (S4 (2N) S5) AND S8
S19	1	S17 AND S18
S20	187	S16 AND S4 AND S8
S21	12	S20 AND S17
S22	321	S9 AND S10 AND S3 AND S11 AND (S12 (2N) S3)
S23	18	S22 AND S13
S24	12	S15 AND S20
S25	12	S15 AND S22
S26	80	S6 OR S18 OR S19 OR S23 OR S24 OR S25
S27	70	S26 AND S3
S28	42	S27 AND S12
S29	36	S28 AND IC=G06F?

File 347:JAPIO Oct 1976-2003/Jul(Updated 031105)

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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200375

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29/5/1 (Item 1 from file: 347)
DIALOG(R) File 347:JAPIO
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06636559 **Image available**
METHOD AND DEVICE FOR MANAGING MULTICLUSTER-CONSTITUTED COMPUTER SYSTEM

PUB. NO.: 2000-222373 [JP 2000222373 A]
PUBLISHED: August 11, 2000 (20000811)
INVENTOR(s): CHAO CHING-YUN
GOAL PATRICK M
MCCARTY RICHARD JAMES
APPLICANT(s): INTERNATL BUSINESS MACH CORP (IBM)
APPL. NO.: 2000-015577 [JP 200015577]
FILED: January 25, 2000 (20000125)
PRIORITY: 240494 [US 99240494], US (United States of America), January
29, 1999 (19990129)
INTL CLASS: G06F-015/177

ABSTRACT

PROBLEM TO BE SOLVED: To efficiently manage a complicated set of high-availability **resources** by allowing a cluster system to support the **resource** group fail-over between two arbitrary **nodes** in a large-scale clusters of 2 **nodes**.

SOLUTION: A **cluster computer system** 200 is provided so as to actualize the high availability of an NT-server-based application and Microsoft cluster service(MSCS) supports a fail-over function in a cluster of two **nodes** 202 and 204 and a common disk 208. If a **resource** gets out of order, MSCS restarts the **faulty resource** on a local **node** or moves the **resource** group to another **node**. Two **nodes** in the MSCS cluster have mutual heart beats 206, and if one **node** gets out of order, all **resource** groups are restarted on remaining **nodes**. After this fail-over event, the system is initialized.

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29/5/2 (Item 2 from file: 347)
DIALOG(R) File 347:JAPIO
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06608873 **Image available**
ASYNCHRONOUS I/O HIGHLY AVAILABLE IN CLUSTER COMPUTER SYSTEM

PUB. NO.: 2000-194678 [JP 2000194678 A]
PUBLISHED: July 14, 2000 (20000714)
INVENTOR(s): MANKUDE HARIPRASAD B
APPLICANT(s): SUN MICROSYST INC
APPL. NO.: 11-323420 [JP 99323420]
FILED: November 12, 1999 (19991112)
PRIORITY: 190664 [US 98190664], US (United States of America), November
12, 1998 (19981112)
INTL CLASS: G06F-015/177 ; G06F-013/00

ABSTRACT

PROBLEM TO BE SOLVED: To provide a system which enables an I/O request to progress when a primary server that is processing the I/O request has a **failure** and a secondary server takes over the primary server.

SOLUTION: This system enables an I/O request to progress when a primary server 106 that processes the I/O request has a **failure** and a secondary server 108 takes over the server 106. Then the system includes a step where the I/O request is received from a **client** application that is driving on a **client**, a process where a parameter is stored for the I/O request on the **client**, a process where the I/O request is sent to the server 106, a step where the **client** application can be continuously executed while the I/O request is being processed and a step where the I/O request is retried

to the server 108 by means of the I/O request parameter stored on the **client** if the server 106 has a **failure** after the I/O request is sent to the server 106 and before an I/O request end indicator returns from the server 106.

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29/5/3 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO
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06050909 **Image available**
CLIENT FAULT DETECTING METHOD

PUB. NO.: 10-334009 [JP 10334009 A]
PUBLISHED: December 18, 1998 (19981218)
INVENTOR(s): ENOMOTO YOSHIHIRO
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 09-138625 [JP 97138625]
FILED: May 28, 1997 (19970528)
INTL CLASS: [6] **G06F-013/00 ; G06F-013/00 ; G06F-011/30**
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units); 45.1
(INFORMATION PROCESSING -- Arithmetic Sequence Units)

ABSTRACT

PROBLEM TO BE SOLVED: To improve the reliability by attaining the avoidance of secondary problem occurrence in system operation by speedily **detecting fault** occurrence in its early stages, by judging the occurrence of a fault at a **client computer** when there is no **response** from a **client** process designated by an IP address corresponding to an under-operation diagnostic command.

SOLUTION: When starting a server process corresponding to a processing request from the side of **client**, the IP address of present station is reported from each **client** to a server (step S301). The under-operation diagnostic command is issued at a fixed time interval to the **client** designated by the IP address sent by report processing at the started server process (step S302) and it is monitored whether the **client** enables communication or not. When there is an **answer** to the under-operation diagnostic command from the side of **client**, the processing of under-operation diagnostic command is **repeated** but when no normal **response** to the under-operation diagnostic command can be provided from the side of **client**, abnormal end processing is **performed** on the side of server (step S303).

29/5/4 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO
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04400193 **Image available**
SYSTEM FOR CHANGING-OVER DUPLICATING DEVICE

PUB. NO.: 06-044093 [JP 6044093 A]
PUBLISHED: February 18, 1994 (19940218)
INVENTOR(s): MIZUGUCHI TADASHI
YAMAMOTO TAKAAKI
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP
(Japan)
NEC COMMUN SYST LTD [491066] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 04-079676 [JP 9279676]
FILED: April 01, 1992 (19920401)
INTL CLASS: [5] **G06F-011/20 ; G06F-015/16**
JAPIO CLASS: 45.1 (INFORMATION PROCESSING -- Arithmetic Sequence Units);

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04159416 **Image available**

SYSTEM FOR POINTING COMMUNICATION **FAULT** LOCATION

PUB. NO.: 05-151116 [JP 5151116 A]
PUBLISHED: June 18, 1993 (19930618)
INVENTOR(s): OMAE TETSUYA
APPLICANT(s): HOKURIKU NIPPON DENKI SOFTWARE KK [000000] (A Japanese
Company or Corporation), JP (Japan)
APPL. NO.: 03-311186 [JP 91311186]
FILED: November 27, 1991 (19911127)
INTL CLASS: [5] **G06F-013/00** ; H04B-017/00; H04L-012/24; H04L-012/26;
H04L-029/14
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units); 44.2
(COMMUNICATION -- Transmission Systems); 44.3 (COMMUNICATION
-- Telegraphy)
JOURNAL: Section: P, Section No. 1623, Vol. 17, No. 546, Pg. 58,
September 30, 1993 (19930930)

ABSTRACT

PURPOSE: To separately point the **fault** of a **processor** and that of a
communication path in a network system consisting of ≥ 3 **processors** .

CONSTITUTION: The diagnostic communication part 160 of a **processor** 100
performs the diagnostic communication to other **processors** 101 and 102.
Meanwhile the diagnostic **responding** parts 141 and 142 send the
responding communication to the **processor** 100 respectively. Receiving
the **response** , the **processor** 100 records the presence or absence of
responses to a matrix flag 180 and sends a start flag 200 to the
processor 101 selected by a next diagnostic **processor** selector means
220 for recording a fact that the information on the flag 180 is diagnosed.
The **processor** 101 carried out the preceding processing. By **repeating**
these operations, a **fault** location pointing part 190 **detects** a **fault**
. Thus the **fault** of a **processor** can be surely discriminated from the
fault of a communication path.

29/5/11 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015067297 **Image available**

WPI Acc No: 2003-127813/200312

XRPX Acc No: N03-101443

Computer **system reconfiguring method involves testing physical drive on
communication channel and removing inquiring node from node cluster
if testing is successful**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: GNANASIVAM G; ROWLANDS M B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6460149	B1	20021001	US 2000518479	A	20000303	200312 B
			US 2000547000	A	20000411	

Priority Applications (No Type Date): US 2000518479 A 20000303; US
2000547000 A 20000411

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6460149	B1	46	G06F-011/00	Cont of application US 2000518479

Abstract (Basic): US 6460149 B1

NOVELTY - A pair of **nodes** in a **node** cluster have **node**
controllers (220a,220b) connected through a communication channel. The
inquiring **node** detects channel **failure** and tests a physical drive
on the channel. The inquiring mode removes user from cluster or issues

an instruction to cause the recovering **node** to be removed if testing is unsuccessful or successful respectively.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) **Computer** readable medium storing **computer** system reconfiguring program; and
- (2) **Computer** system.

USE - For reconfiguring **computer** system (claimed).

ADVANTAGE - Since the controller of one **node** detects the **failure** of other **node**, the **node failure** can be detected accurately and at a minimal time.

DESCRIPTION OF DRAWING(S) - The figure illustrates the physical view of the two **node cluster computer system**.

Node controllers (220a,220b)

pp; 46 DwgNo 2/23

Title Terms: **COMPUTER** ; SYSTEM; METHOD; TEST; PHYSICAL; DRIVE; COMMUNICATE ; CHANNEL; REMOVE; **NODE** ; **NODE** ; CLUSTER; TEST; SUCCESS

Derwent Class: T01

International Patent Class (Main): **G06F-011/00**

File Segment: EPI

29/5/12 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015029164 **Image available**

WPI Acc No: 2003-089681/200308

XRFX Acc No: N03-070713

Service control method in cluster computer system, involves initializing shutdown or start-up sequences stored in shared memory based on detected service failure

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: KEUNG N S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6467050	B1	20021015	US 98152541	A	19980914	200308 B

Priority Applications (No Type Date): US 98152541 A 19980914

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6467050	B1		17	H02H-003/05	

Abstract (Basic): US 6467050 B1

NOVELTY - The registered set of services in a **cluster computer system** are monitored for detecting the **failure** of a service. Several shutdown and start-up sequences stored in a shared memory, are initialized based on the monitoring result.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Service management method;
- (2) **Cluster computer system** ; and
- (3) **Computer** program product for implementing service management method.

USE - For controlling services e.g. e-mail program or spread sheet program in **cluster computer system** (claimed).

ADVANTAGE - Provides facility for starting, stopping and restarting of all services provided by **cluster computer system**. Enables necessary restart in the event of **failure** of services within the **cluster computer system**.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining the service initializing process.

pp; 17 DwgNo 7A/13

Title Terms: SERVICE; CONTROL; METHOD; CLUSTER; **COMPUTER** ; SYSTEM; INITIALISE; START; UP; SEQUENCE; STORAGE; SHARE; MEMORY; BASED; DETECT; SERVICE; FAIL

Derwent Class: T01
International Patent Class (Main): H02H-003/05
International Patent Class (Additional): G06F-012/00
File Segment: EPI

29/5/13 (Item 7 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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014884947 **Image available**
WPI Acc No: 2002-705653/200276
XRPX Acc No: N02-556244

Processing fault handling method in computer system, involves repeating detecting faults and initiating execution of instructions according to restart sequences which restarts without and with lag time

Patent Assignee: CISCO TECHNOLOGY INC (CISC-N)
Inventor: SINGH D; WACLAWSKY J G
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6453430	B1	20020917	US 99305947	A	19990506	200276 B

Priority Applications (No Type Date): US 99305947 A 19990506
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6453430	B1	20	G06F-011/00		

Abstract (Basic): US 6453430 B1

NOVELTY - An **execution** of set of instructions is initiated in **response** to the **detection** of an improper **execution**. The **detection** and initiating operations are **repeated** according to a restart sequence which restarts operations without any lag time. The **detection** and initiating operations are **repeated** again with another restart sequence which restarts with lag time.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) **Computer** controlled device;
- (2) **Computer** program product for storing process **faults** handling instructions;
- (3) Process control block data structure; and
- (4) Propagated data signal.

USE - For handling processing **faults** in **computer** system and also in data communication device such as routers, switches, hubs, gateways, network access servers, proxy servers, network bridges, data **repeaters**, modems, protocols converters, etc.

ADVANTAGE - Reduces the downtime of process **failures**, as the **fault detection** and instruction initiating operations are **repeated** according to restart sequence without lag time and with lag time. Hence, ensures correct overall system with improved flexibility.

DESCRIPTION OF DRAWING(S) - The figure shows the architecture of **computer** controlled device.

pp; 20 DwgNo 1/4

Title Terms: PROCESS; **FAULT**; HANDLE; METHOD; **COMPUTER**; SYSTEM; **REPEAT**; **DETECT**; **FAULT**; INITIATE; **EXECUTE**; INSTRUCTION; ACCORD; RESTART; SEQUENCE; RESTART; LAG; TIME

Derwent Class: T01
International Patent Class (Main): G06F-011/00
File Segment: EPI

29/5/14 (Item 8 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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014342552 **Image available**

WPI Acc No: 2002-163255/200221
XRPX Acc No: N02-124570

Implementing and fabricating faults in non-blocking three-phase flush algorithm for database transactions, involves executing primary and backup of commit coordinator, resource manager and log process pairs

Patent Assignee: COMPAQ COMPUTER CORP (COPQ)
Inventor: CHEUNG Y C; JOHNSON C S; SHARIQ M; TUNG S
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6338146	B1	20020108	US 9760534	P	19970930	200221 B
			US 98163812	A	19980930	

Priority Applications (No Type Date): US 9760534 P 19970930; US 98163812 A 19980930

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6338146	B1	19	G06F-011/07	Provisional application	US 9760534

Abstract (Basic): US 6338146 B1

NOVELTY - Primary and backup of commit coordinator, **resource** manager and log process pairs (2B0-2B2) are executed on different SMP **nodes** (210) of a network (220). A flush broadcast is issued by a transaction owner, so that the **resource** managers flush their respective database updates. The flush results reported to the primary commit coordinator are synchronized to the backup coordinator and a commit report is written in a log memory.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Method for performing a non-blocking flush operation;
- (b) **Computer** readable medium storing program for performing non-blocking flush operation;
- (c) System for implementing and tolerating **faults** in a non-blocking three-phase **fault** algorithm

USE - For implementing and tolerating **faults** in non-blocking three-phase flush algorithm for database transactions effected on **cluster computer systems**.

ADVANTAGE - Since primary and backup of each process pairs are executed on different **nodes** of network, the **failure** of any system in either **node** will not result in loss to the flush results.

DESCRIPTION OF DRAWING(S) - The figure shows the SMP **nodes** comprising a cluster.

SMP **nodes** (210)
Network (220)
Log process pairs (2B0-2B2)
pp; 19 DwgNo 2/11

Title Terms: IMPLEMENT; FABRICATE; **FAULT**; NON; BLOCK; THREE; PHASE; FLUSH;
; ALGORITHM; DATABASE; TRANSACTION; EXECUTE; PRIMARY; COMMIT; COORDINATE;
RESOURCE; MANAGE; LOG; PROCESS; PAIR

Derwent Class: T01

International Patent Class (Main): **G06F-011/07**

File Segment: EPI

29/5/15 (Item 9 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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014333199 **Image available**
WPI Acc No: 2002-153902/200220
Related WPI Acc No: 2001-181302; 2002-413054
XRPX Acc No: N02-117019

Resource management method in clustered computer system, involves updating local resource queue during interrupt handler execution, after locking updated global resource queue

Patent Assignee: NOVELL INC (NOVE-N)
Inventor: MURPHY D; WIPFEL R A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6338112	B1	20020108	US 9738251	P	19970221	200220 B
			US 9824011	A	19980214	
			US 2000574093	A	20000518	

Priority Applications (No Type Date): US 9738251 P 19970221; US 9824011 A 19980214; US 2000574093 A 20000518

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6338112	B1		22	G06F-013/24	Provisional application US 9738251 Div ex application US 9824011

Abstract (Basic): US 6338112 B1

NOVELTY - A global **resource** queue which is guarded by a lock, is unlocked for updating. The updated global queue is locked and the local queue of **resources** is updated while executing an interrupt handler.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) **Computer** system;

(b) Recorded medium storing **resource** management program

USE - For managing **resource** allocation in a **cluster computer system** comprising server, **workstation**, diskless **computer**, lap-top, multi-**processor**, main-frame, network **computer**, personal digital assistant interconnected by legacy networks such as LAN, WAN, metropolitan area network, Internet network e.g. WWW, private Internet, secure Internet, value-added network, virtual private network, extranet or intranet.

ADVANTAGE - Enables to coordinate shared **resource** access when an interconnect fails without relying on a local area network or a serial link. Aids in rapid, detailed diagnosis of communication problems, hence promotes rapid and correct compensation by the cluster during communication **failure**. Also reallocates the sharable **resources** without interrupting work on other **nodes**.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining **resource** allocation management process.

pp; 22 DwgNo 8/8

Title Terms: **RESOURCE** ; MANAGEMENT; METHOD; CLUSTER; **COMPUTER** ; SYSTEM; UPDATE; LOCAL; **RESOURCE** ; QUEUE; INTERRUPT; HANDLE; EXECUTE; AFTER; LOCK ; UPDATE; GLOBE; **RESOURCE** ; QUEUE

Derwent Class: T01

International Patent Class (Main): **G06F-013/24**

International Patent Class (Additional): **G06F-013/32**

File Segment: EPI

29/5/16 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013465289 **Image available**

WPI Acc No: 2000-637232/200061

XRFX Acc No: N00-472530

Message communication method for use in multi processing computer system, involves invoking membership protocol providing asymmetric safety on failure detection of communication nodes

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: PALMER J D; STRONG H R; UPFAL E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6092220	A	20000718	US 97972111	A	19971117	200061 B

Priority Applications (No Type Date): US 97972111 A 19971117

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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Abstract (Basic): US 6092220 A

NOVELTY - One of **nodes** initiates message transmission to processing **nodes** of multi-processing system. A specific processing **node** receives initiated message transmission. The **node detects failure**, when **acknowledging** communication is not received from other **nodes** during specific period. Then, **membership** protocol providing asymmetric safety is invoked.

DETAILED DESCRIPTION - **INDEPENDENT CLAIMS** are also included for the following:

(a) program for **performing** message communication among **multiple** processing **nodes** in multiprocessing system;

(b) multiprocessing apparatus

USE - In multiprocessing **computer** system for exchanging information in banking network, automatic teller network, airlines reservation system, online **transaction** system, database management system.

ADVANTAGE - Eases implementation as it does not require strong consensus and symmetry among **group members**. Offers reliability as message delivery is guaranteed for each operating **member node** in multiprocessing system. Facilitates accurate, reliable communication among multiprocessing **nodes** in timely manner. In non-blocking and wait free as asymmetric **membership** protocol is used. Each **node** avoids **failure** by **recognizing** the **failure** condition despite delayed messages, lost messages, **failed** processing **nodes**.

DESCRIPTION OF DRAWING(S) - The figure shows the flow chart illustrating operational sequence of message reception for use in implementing **ordered** reliable multicast with asymmetric safety in multiprocessing system.

pp; 18 DwgNo 6/9

Title Terms: MESSAGE; COMMUNICATE; METHOD; MULTI; PROCESS; **COMPUTER** ;
SYSTEM; INVOKE; **MEMBER** ; PROTOCOL; ASYMMETRIC; SAFETY; FAIL; **DETECT** ;
COMMUNICATE; **NODE**

Derwent Class: T01

International Patent Class (Main): **G06F-011/30**

File Segment: EPI

29/5/17 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011869335 **Image available**

WPI Acc No: 1998-286245/199825

XRPX Acc No: N98-225054

Fault **recovery apparatus** for computer system - includes duplicate processors which compare outputs of each other and validates output of processor system

Patent Assignee: HITACHI LTD (HITA)

Inventor: IKEDA K; IWAMOTO H; KUROSAWA K; MORIOKA M; NAKAMIKAWA T;

NISHIYAMA T; OHGURO H

Number of Countries: 002 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5748873	A	19980505	US 93123857	A	19930917	199825 B
			US 96630023	A	19960409	
			US 96686486	A	19960726	
JP 3156429	B2	20010416	JP 9356777	A	19930317	200124
JP 2002244879	A	20020830	JP 92248133	A	19920917	200273
			JP 2001400603	A	19920917	
JP 3423732	B2	20030707	JP 92248133	A	19920917	200345

Priority Applications (No Type Date): JP 9356777 A 19930317; JP 92248133 A 19920917; JP 2001400603 A 19920917

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5748873 A 46 G06F-011/34 Cont of application US 93123857
 Cont of application US 96630023
 JP 3156429 B2 18 G06F-011/18 Previous Publ. patent JP 6266574
 JP 2002244879 A 18 G06F-011/18 Div ex application JP 92248133
 JP 3423732 B2 29 G06F-011/18 Previous Publ. patent JP 6095902

Abstract (Basic): US 5748873 A

The highly reliable **computer** apparatus includes a main memory for storing data processed by the **computer** system. Two **processors** are connected to the main memory for **executing** a process in a duplex mode. A device compares respective outputs from the **processors** with each other for **detecting** a mismatch between the outputs. Each of the **processors** includes a device for **detecting** the internal **fault** occurring in the **processor**. One of the **processors** serves to **recognize** a **fault** occurring in the other **processor** based on **fault** information about the **detected** internal **fault** **detected** by the **detecting** device of the other **processor** when the mismatch is **detected** by the comparing device.

Internal state information representing an internal status of the other **processors** is written in the main memory. A factor of the **fault** occurring in the other **processor** is **determined** based on the **fault** information about the **detected** internal **fault**. A synchronizing indication is provided to the **processor** when the **processors** continue the process in the duplex mode. The **processors** are reset with clock-synchronizing based on a re- **executing** indication in **response** to the synchronizing indication by an operating device. The internal state information representing the internal status of the other **processor** saved in the main memory is read and the process is continued.

ADVANTAGE - Provides highly reliable **computer** apparatus.
 Dwg.14/30

Title Terms: **FAULT** ; **RECOVER**; **APPARATUS**; **COMPUTER** ; **SYSTEM**; **DUPLICATE** ;
PROCESSOR ; **COMPARE**; **OUTPUT**; **VALID**; **OUTPUT**; **PROCESSOR** ; **SYSTEM**

Derwent Class: T01

International Patent Class (Main): **G06F-011/18** ; **G06F-011/34**

International Patent Class (Additional): **G06F-012/08** ; **G06F-012/10** ;

G06F-013/00 ; **G06F-015/177**

File Segment: EPI

29/5/18 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010928047 **Image available**

WPI Acc No: 1996-424998/199642

Related WPI Acc No: 1995-215002

XRPX Acc No: N96-357866

Multiprocessor fault -tolerant database for phone billing or airline reservation system - has multiple nodes divided into groups with table fragments and replicas distributed over system with transaction manager forwarding queries to relevant node

Patent Assignee: TELENOR AS (TELE-N); CLUSTRA SYSTEMS INC (CLUS-N)

Inventor: HVASSHOVD S; TORBJOERNSSEN O; TORBJORNSEN O

Number of Countries: 020 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5555404	A	19960910	US 92852669	A	19920317	199642 B
			US 94336331	A	19941108	
			US 95451885	A	19950526	
WO 9637837	A2	19961128	WO 96N0122	A	19960521	199702
WO 9637837	A3	19970116	WO 96N0122	A	19960521	199715
EP 829049	A2	19980318	EP 96916386	A	19960521	199815
			WO 96N0122	A	19960521	
JP 11506556	W	19990608	JP 96535584	A	19960521	199933
			WO 96N0122	A	19960521	
EP 829049	B1	20010808	EP 96916386	A	19960521	200146

Priority Applications (No Type Date): US 95451885 A 19950526; US 92852669 A 19920317; US 94336331 A 19941108

Cited Patents: US 5307481; US 5379418; WO 9414125

Patent Details:

Patent No	Kind	Lang	Pg	Main IPC	Filing Notes
US 5555404	A		20	G06F-017/30	Cont of application US 92852669 CIP of application US 94336331 CIP of patent US 5423037

WO 9637837 A2 E 40 G06F-011/14
Designated States (National): JP NO
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC
NL PT SE

WO 9637837 A3 H03K-017/94
EP 829049 A2 E G06F-011/14 Based on patent WO 9637837
Designated States (Regional): DE GB IT SE
JP 11506556 W 50 G06F-012/00 Based on patent WO 9637837
EP 829049 B1 E G06F-011/14 Based on patent WO 9637837
Designated States (Regional): DE GB IT SE

Abstract (Basic): US 5555404 A

The system has **multiple nodes**, each with its own CPU, primary and secondary memory storing database tables and other data structures, and communication channels for communication with other **nodes**. The **nodes** are divided into at least two **groups** that share no **resources**. Each table in the system is divided into fragments distributed over all the **nodes** in the system. Primary and standby replicas of each fragment are stored on **nodes** in different **groups**. Database **transactions** are **performed** using the primary fragment replicas, and the standby replicas are updated using **transaction** log records. Every **node** of the system includes a data dictionary storing information indicating where each primary and standby fragment replica is stored.

A **transaction** manager on each **node** **responds** to database queries by **determining** which fragment of a database is being accessed by the query and forwarding the database query to the **node processor** on which the primary replica of that fragment is stored. Upon **failure** of any one of the data **processors** in the system, each **node** updates the information in its data dictionary accordingly. In addition, the fragment replicas made unavailable by the **node failure** are regenerated and stored on the remaining available **nodes** in the same **node group** as the **failed node**.

ADVANTAGE - Provides highly reliable database server which is single **fault** tolerant. Has automatic non-blocking and self repair that quickly re-establishes single **fault** tolerance after first **node failure**. Provides graceful **degradation** w.r.t. data availability when multiple **failures** occur.

Dwg.2/7

Title Terms: MULTIPROCESSOR; **FAULT**; TOLERATE; DATABASE; TELEPHONE; BILL; AIRLINE; RESERVE; SYSTEM; MULTIPLE; **NODE**; DIVIDE; **GROUP**; TABLE; FRAGMENT; REPLICA; DISTRIBUTE; SYSTEM; **TRANSACTION**; MANAGE; FORWARDING; QUERY; RELEVANT; **NODE**

Derwent Class: T01

International Patent Class (Main): G06F-011/14 ; G06F-012/00 ; G06F-017/30 ; H03K-017/94

International Patent Class (Additional): G06F-009/28 ; G06F-011/20 ; G08B-005/22; G08C-019/12; H04L-017/02

File Segment: EPI

29/5/19 (Item 13 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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010545799 **Image available**
WPI Acc No: 1996-042752/199605
XRPX Acc No: N96-035773

GB 2287863 A 118 H04L-012/437
JP 7264184 A 35 H04L-012/24
US 5513345 A 71 G06F-013/00
GB 2287863 B H04L-012/437
JP 3438105 B2 34 H04L-012/56 Previous Publ. patent JP 7264184

Abstract (Basic): GB 2287863 A

The system includes a restoration processing stage (2) which searches for an alternative route on **failure** of a **node** or link. A stage (3) processes an **acknowledgement** message to reserve an alternative route. A cancellation message stage (4) cancels reservation of the alternative route. A confirmation stage (5) processes a confirmation message confirming a reserved alternative route and switches cross-connect equipment.

A cross-connect **completion** message notifies **completion** of the switching of the cross-connect equipment to the **nodes**. A cross-connect **acknowledgement** message confirms **completion** of switching on the alternative route. A stage (7) processes a cross-connection confirmation message to **complete** the search for an alternative route.

ADVANTAGE - High speed restoration of service even for multiple link **failures**. Searches for alternative routes autonomously in distributed manner.

1A, 1B/53

Title Terms: NETWORK; ALTERNATIVE; ROUTE; SEARCH; SYSTEM; FAIL; RESTORATION
; DISTRIBUTE; CONTROL; RESERVE; ALTERNATIVE; ROUTE; SWITCH; EQUIPMENT;
ALTERNATIVE; ROUTE; ACCORD; CONFIRM; MESSAGE

Derwent Class: W01

International Patent Class (Main): G06F-013/00 ; H04L-012/24; H04L-012/437
; H04L-012/56

International Patent Class (Additional): H04L-012/00; H04L-012/26;
H04M-003/00; H04M-003/22; H04Q-011/04

File Segment: EPI

29/5/22 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010313744 **Image available**

WPI Acc No: 1995-215002/199528

Related WPI Acc No: 1996-424998

XRPX Acc No: N95-168627

Continuously available database server e.g. for telephone billing system
- has database table divided into fragments and distributed over all
system nodes, performs transactions using prim. fragment replicas,
and updates standby replicas using log records, and has transaction
manager for database queries

Patent Assignee: TELESERVE TRANSACTION TECHNOLOGY AS (TELE-N)

Inventor: HVASSHOVD S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5423037	A	19950606	US 92852669	A	19920317	199528 B
			US 94336331	A	19941108	

Priority Applications (No Type Date): US 92852669 A 19920317; US 94336331 A 19941108

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5423037	A		14	G06F-009/28	Cont of application US 92852669

Abstract (Basic): US 5423037 A

A database server has **multiple nodes**, each having its own central processing unit, primary and secondary memory for storing database tables and other data structures, and communication channels for communication with other **nodes**. The **nodes** are divided into

first and second **groups** that share no **resources** . Each database table in the system is divided into fragments distributed for storage purposes over all the **nodes** in the system.

To ensure continued data availability after a **node failure** , a primary replica and a standby replica of each fragment are each stored on **nodes** in different **groups** . Database **transactions** are **performed** using the primary fragment replicas, and the standby replicas are updated using **transaction** log records. Every **node** of the system includes a data dictionary that stores information indicating where each primary and standby fragment replica is stored. The records of each database table are allocated as evenly as possible among the table fragments. A **transaction** manager on each **node** **responds** to database queries by **determining** which fragment of a database is being accessed by the query and then forwarding the database query to the **node processor** on which the primary replica of that fragment is stored. Upon **failure** of any one of the data **processors** in the system, each **node** updates the information in its data dictionary accordingly. In addition, the fragment replicas made unavailable by the **node failure** are regenerated and stored on the remaining available **nodes** in the same **node group** as the **failed node** .

ADVANTAGE - Prevents any one hardware **failure** from causing entire system to crash.

Dwg.4/6

Title Terms: CONTINUOUS; AVAILABLE; DATABASE; SERVE; TELEPHONE; BILL;
SYSTEM; DATABASE; TABLE; DIVIDE; FRAGMENT; DISTRIBUTE; SYSTEM; **NODE** ;
PERFORMANCE ; **TRANSACTION** ; PRIMARY; FRAGMENT; REPLICAS; UPDATE; STANDBY;
REPLICAS; LOG; RECORD; **TRANSACTION** ; MANAGE; DATABASE; QUERY

Index Terms/Additional Words: **dist ributedB_US -5423037_US 5423037__U**
Derwent Class: T01

International Patent Class (Main): **G06F-009/28**

International Patent Class (Additional): **G06F-015/177 ; G06F-017/30**

File Segment: EPI

29/5/23 (Item 17 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010223536 **Image available**

WPI Acc No: 1995-124791/199517

XRPX Acc No: N95-098730

Processor error and error response system for mainframe central processing unit - has duplicated basic processing unit which performs data manipulations redundantly and compares duplicate data to determine error and correct faulty data

Patent Assignee: BULL HN INFORMATION SYSTEMS INC (HONE)

Inventor: CHAMOUN S; ECKARD C B; FLOCKEN B E; GUENTHNER R W; WEINTRAUB J D

Number of Countries: 005 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 645708	A1	19950329	EP 94105978	A	19940418	199517 B
US 5408651	A	19950418	US 93127206	A	19930927	199521
EP 645708	B1	19991110	EP 94105978	A	19940418	199952
DE 69421587	E	19991216	DE 621587	A	19940418	200005
			EP 94105978	A	19940418	

Priority Applications (No Type Date): US 93127206 A 19930927

Cited Patents: Jnl.Ref; DE 2523795; EP 463573

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 645708	A1	E	11	G06F-011/14	
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Designated States (Regional): DE FR GB IT

DE 69421587	E			G06F-011/14	Based on patent EP 645708
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US 5408651	A		9	G06F-011/16	
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EP 645708	B1	E		G06F-011/14	
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Designated States (Regional): DE FR GB IT

Set	Items	Description
S1	1438576	ORGANIZ? OR ORGANIS? OR CLASSIF? OR GROUP? OR CATEGOR? OR - ARRANGE? OR ORDER?
S2	1112596	MULTIPL? OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL OR DUPL- ICATE OR UNLIMITED
S3	884848	MEMBER? OR CLIENT? OR STAND()ALONE? OR STANDALONE? OR PC OR COMPUTER? OR WORKSTATION? OR WORK()STATION? OR NODE? OR TERM- INAL? OR PROCESSOR? OR RESOURCE?
S4	762990	SUBGROUP? OR SUB()GROUP? OR CLUSTER? OR ALLOCATION()UNIT? - OR GROUP? OR COLLECT?
S5	670090	LEADER? OR CONDUCTOR? OR DIRECTOR? OR GUIDE? OR MASTER? OR LEAD? ? OR PILOT?
S6	13	CLUSTER()COMPUTER()SYSTEM? ?
S7	1478434	DETERMIN? OR ASSIGN? OR APPOINT? OR SELECT? OR PICK? OR CH- OOSE OR CHOICE OR ELECT? ? OR SPECIF? OR DESIGNAT? OR DENOT? - OR APPOINT? OR NOMINAT? OR STIPULAT? OR DECID?
S8	68285	(TRANSMIT? OR TRANSFER? OR READ? OR WRITE? ? OR WRITING OR TRANSFER? OR TRANSMISSION OR DELIVER? OR HANDOVER OR TURNOVER OR (HAND? OR TURN?)() (IN OR OVER) OR SEND?)()DATA
S9	1160029	PERFORM? OR TRANSACT? OR EXECUT? OR DISCHARG? OR ACCOMPLIS- H? OR COMPLET? OR CARRY?()OUT OR FULFILL?
S10	437032	RESPONSE? OR ANSWER? OR ACKNOWLEDG? OR REPLY OR REPLIES OR RESPOND? OR HANDSHAKE? OR REPLY? OR REPLIES OR FEEDBACK OR FE- ED()BACK
S11	989157	DETECT? OR DETERMIN? OR RECOGNI? OR INTERROGAT? OR VERIFY? OR AUTHENTICAT? OR VALIDAT? OR JUDGE? OR IDENTIFY?
S12	531969	FAILED OR DEFECT? OR FAILURE? OR FAULT? OR MALFUNCTION? OR DEFAULT? OR DETERIORATION OR DEGRADATION OR ERROR? OR INVALID OR INOPERATIVE OR BAD
S13	382731	REPEAT??? OR REDO??? OR REPETITION OR DUPLICAT?
S14	356	(NON OR "NO" OR "NOT")() (S12 (2N) S3)
S15	33124	S1 (S) (S2 (3N) S3)
S16	231129	S7 (S) S5
S17	1462	S15 (S) S16
S18	69	S7 (S) (S4 (2N) S5) (S) S8
S19	22	S17 (S) S18
S20	463	S16 (S) S4 (S) S8
S21	75	S20 (S) S17
S22	687	S9 (S) S10 (S) S3 (S) S11 (S) (S12 (2N) S3)
S23	134	S22 (S) S13
S24	95	S15 (S) S20
S25	7	S23 (S) S24
S26	26	S14 (S) S22
S27	118	S6 OR S19 OR S21 OR S25 OR S26
S28	66	S27 AND IC=G06F?
S29	15	S27 AND IC=G06F-015?

File 348:EUROPEAN PATENTS 1978-2003/Nov W03

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031120,UT=20031113

(c) 2003 WIPO/Univentio

29/5,K/1 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00808069

Framework for managing cluster membership in a multiprocessor system
Struktur zur Gruppenzugehörigkeitsverwaltung in einem Mehrfachrechnersystem
Structure pour gerer l'appartenance a un groupe dans un systeme multiprocesseur

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 750256 A2 961227 (Basic)
EP 750256 A3 980930
EP 750256 B1 030827

APPLICATION (CC, No, Date): EP 96304599 960620;

PRIORITY (CC, No, Date): US 493550 950623

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-009/46; G06F-015/16

CITED PATENTS (EP B): EP 330475 A; US 5287453 A

REFERENCES (EP B):

CHANG R N ET AL: "A SERVICE ACQUISITION MECHANISM FOR SERVER-BASED
HETEROGENEOUS DISTRIBUTED SYSTEMS" IEEE TRANSACTIONS ON PARALLEL AND
DISTRIBUTED SYSTEMS, vol. 5, no. 2, 1 February 1994, pages 154-169,
XP000440134;

ABSTRACT EP 750256 A2

A shared-disk cluster system includes a cluster membership manager framework which coordinates the joining or leaving among all nodes in a cluster including taking the multiple layers of involved subsystems through transitions. Subsystems are notified of transitions in particular order depending upon the transition, and all nodes' subsystems receiving a notification must process that notification prior to another layer of subsystems being notified. One of the subsystems registered for notification is an event manager in user space. The event manager carries out transfers of client services, including user applications, resulting from nodes joining and leaving the cluster. This includes a registration and launch service which registers a node, or multiple nodes, in a cluster which claims, or is assigned, responsibility for the service and provides an optional launching function which initiates the client service upon successful registration. (see image in original document)

ABSTRACT WORD COUNT: 161

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Examination: 001129 A2 Date of dispatch of the first examination
report: 20001016

Application: 961227 A2 Published application (Alwith Search Report

;A2without Search Report)
Grant: 030827 B1 Granted patent
Search Report: 980930 A3 Separate publication of the European or
International search report
Examination: 990428 A2 Date of filing of request for examination:
990226
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	1790
CLAIMS B	(English)	200335	1764
CLAIMS B	(German)	200335	1787
CLAIMS B	(French)	200335	1994
SPEC A	(English)	EPAB96	7314
SPEC B	(English)	200335	7352
Total word count - document A			9106
Total word count - document B			12897
Total word count - documents A + B			22003

...INTERNATIONAL PATENT CLASS: G06F-015/16

...SPECIFICATION difficult because inconsistent mechanisms may be used.
United States Patent US-A-5,287,453 discloses a **cluster computer system** which includes a cluster of interconnected independently-operated computer systems which exchange information through a cluster controller
...

29/5,K/2 (Item 2 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00674576

Message passing system for distributed shared memory multiprocessor system
and message passing method using the same

Nachrichtenerübertragungssystem für Multiprozessorsystem mit verteiltem
gemeinsamen Speicher und dazu gehoriges Nachrichtenerübertragungsverfahren

Système de communication de messages pour système multiprocesseur avec
mémoire partagée répartie et méthode de communication de messages
l'utilisant

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 646876 A1 950405 (Basic)
EP 646876 B1 000426

APPLICATION (CC, No, Date): EP 94115617 941004;

PRIORITY (CC, No, Date): JP 93248973 931005; JP 94202071 940826

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G06F-015/16

CITED PATENTS (EP B): EP 345738 A; EP 360153 A; EP 365731 A

ABSTRACT EP 646876 A1

In a multiprocessor system, each processor module PM comprises a
processor, a distributed shared memory, a distributed memory coupler for
controlling copying between distributed shared memories and a distributed
memory protector for protecting said on the distributed shared memory

against illegal access. The distributed shared memories are assigned with global addresses common to all the processor modules, and the distributed shared memory of each processor module PM has its addresses shared with the distributed shared memory of each processor module which is the destination of data transfer. Message buffers MB and message control areas on the distributed shared memory are divided into areas specified by a combination of sending and receiving processor modules and arranged. A processing request area on the distributed shared memory is divided corresponding to each receiving processor module and arranged accordingly. The processing request area on the receiver's side distributed shared memory has a FIFO structure. The sender's side distributed memory coupler stores identifying information of the destination processor module between the processor module communication and, upon occurrence of a write into the distributed shared memory, sends a write address and write data to the destination processor module. Furthermore, the receiver's side distributed memory coupler copies the received write data into the distributed shared memory of the processor module to which the distributed shared memory coupler belongs, by receiving write address and write data from the sender's side distributed memory coupler. (see image in original document)

ABSTRACT WORD COUNT: 242

NOTE:

Figure number on first page: 3

LEGAL STATUS (Type, Pub Date, Kind, Text):

Oppn None: 010411 B1 No opposition filed: 20010127
Grant: 20000426 B1 Granted patent
Application: 950405 A1 Published application (A1with Search Report
;A2without Search Report)
Examination: 950405 A1 Date of filing of request for examination:
941004
Change: 950503 A1 Representative (change)
Change: 960501 A1 Representative (change)
*Assignee: 960501 A1 Applicant (transfer of rights) (change): NIPPON
TELEGRAPH AND TELEPHONE CORPORATION (686339)
19-2 Nishi-Shinjuku 3-chome Shinjuku-ku, Tokyo
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*Assignee: 960501 A1 Previous applicant in case of transfer of
rights (change): NIPPON TELEGRAPH AND TELEPHONE
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Chiyoda-ku Tokyo (JP) (applicant designated
states: DE;FR;GB)
Examination: 981104 A1 Date of despatch of first examination report:
980921
Change: 990901 A1 Title of invention (German) changed: 19990715

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200017	3591
SPEC B	(English)	200017	26590
Total word count - document A			0
Total word count - document B			30181
Total word count - documents A + B			30181

INTERNATIONAL PATENT CLASS: G06F-015/16

...SPECIFICATION the processing efficiency.

In U.S. Patent No. 4,951,193 there is disclosed a method which **transfers data** and control information between processors for processing in parallel a plurality of tasks partitioned from a process...

...which distributed shared memories, which form a shared virtual memory (SVM) address space, are shared by a **plurality of nodes (work stations)** through a network. In this system, each page of the shared virtual address space is mapped to...

...the same data is copied as well to the same address location of another distributed shared memory **specified** by an n-bit vector. In a literature by J. Sandberg et al., entitled "Virtual Memory Mapped...

...SDSM) system, which reduces the frequency of page transfer, using an update-based coherency protocol that sends **write data** to the copy destination each time the shared data is updated. Still another literature by L. D...

...bus and when a data is written to a local memory, its address is compared with preset **directory** entries and if it is a shared variable memory area, a copy of the update data is sent to all the nodes in the multicasting **group**.

However, these prior art literatures make no mention of a method which improves the efficiency of all...

29/5,K/3 (Item 3 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00401209

Apparatus and method for coupling a data processor to alien information handling apparatus

Anordnung und Verfahren zum Verbinden eines Datenprozessors mit einem unbekannten Informationsverarbeitungssystem

Appareil et procede pour connecter un processeur de donnees avec un systeme etranger du traitement des donnees

PATENT ASSIGNEE:

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LEGAL REPRESENTATIVE:

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PATENT (CC, No, Kind, Date): EP 400841 A2 901205 (Basic)

EP 400841 A3 940202

EP 400841 B1 980902

APPLICATION (CC, No, Date): EP 90305311 900516;

PRIORITY (CC, No, Date): US 353114 890517

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: **G06F-015/16**

CITED PATENTS (EP A): US 4004277 A; US 4004277 A; EP 132157 A; GB 2211005 A
; US 4315310 A; US 4077060 A

ABSTRACT EP 400841 A2

The functions of two virtual operating systems (e.g. S/370 VM, VSE or IX370 and S/88 OS) are merged into one physical system. Partner pairs of S/88 processors run the S/88 OS and handle the fault tolerant and single system image aspects of the system. One or more partner pairs of S/370 processors are coupled to corresponding S/88 processors directly and through the S/88 bus. Each S/370 processor is allocated from 1 to 16 megabytes of contiguous storage from the S/88 main storage. Each S/370 virtual operating system thinks its memory allocation starts at address 0, and it manages its memory through normal S/370 dynamic memory allocation and paging techniques. The S/370 is limit checked to prevent the S/370 from accessing S/88 memory space. The S/88 Operating System is

...the node-level
route storing an address of a next node along the
node-level route, and
transferring data from said source node to
said destination node via the node-level route based
upon the addresses...

...next node along the nodelevel route.

. The mobile ad-hoc network of Claim 10 wherein
a respective **cluster** target node is **determined** for each
cluster along the **cluster** -level route; and wherein the node
level route comprises a node-level route from said source node
to a **cluster** target node for a next adjacent **cluster** along the
cluster -level route, and a node-level route from each **cluster**
target node to a next **cluster** target node along the **clusterlevel**
route.

12 The mobile ad-hoc network of Claim 11 wherein
each cluster leader node along the...

29/5,K/10 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00807392 **Image available**

INTERNET SERVICE SYSTEM

SYSTEME DE SERVICES INTERNET

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200140963 A1 20010607 (WO 0140963)

Application: WO 2000US32153 20001127 (PCT/WO US0032153)

Priority Application: US 99168178 19991130; US 2000691979 20001019

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-015/177

International Patent Class: G06F-015/16

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 22983

English Abstract

The present invention relates to an Internet service system (4) which
provides users with real-time communication with an Internet concierge

(8) to facilitate the use of the Internet.

French Abstract

La presente invention concerne un systeme (4) de services Internet permettant aux utilisateurs de communiquer en temps reel avec un concierge (8) Internet destine a leur faciliter l'utilisation de l'Internet.

Legal Status (Type, Date, Text)

Publication 20010607 A1 With international search report.

Publication 20010607 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20011011 Request for preliminary examination prior to end of 19th month from priority date

Main International Patent Class: G06F-015/177

International Patent Class: G06F-015/16

Fulltext Availability:

Claims

Claim

... the Internet service system of the present invention;

Fig. 5 is a schematic diagram of a concierge **cluster** of the one embodiment of Internet service system of present invention;

17

Fig. 6 is a schematic...

...the Internet service system of the present invention;

Fig. 10 is a flowchart of the redirection and **assignment** process of one embodiment of the Internet service system of the present invention;

Fig. 11 is...any wired or wireless

communication system or device. Generally, the Internet is a cooperatively

run, globally distributed **collection** of computer networks that exchange information via Transmission Control Protocol/Internet Protocol

("TCP/IP"). TCP/IP is...

...URLs") are the scheme by which Internet resources are addressed

on the web. URLs can point to **numerous resources** on the Internet, which

are stored in databases on servers such as web pages, Hyper-Text Markup

...

...appreciated that several of the figures include one or more of the following trademarks used by the **assignee** of this application in a current

embodiment of the present invention: (a) LIGHTFLOW; (b)

LIGHTFLOW.COM; (c...

...services) 22 which may provide additional tools (Fig. 3). The system 2 further includes a plurality concierge **clusters** 24 and a **plurality** of user **computer terminals**, Internet access devices, PSTN access devices

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or devices used to access similarly architected private networks 30...

...between an available concierge that has the highest probability of meeting the user's anticipated

need as **determined** by the system using a concierge matching process as discussed below, and, preferably, with-a concierge the...

...handling access to and dynamic

construction of pages requested by the users (in this embodiment). The concierge **assignment** and the concierge redirection modules of the

system 2

which are described below also run on the...

...user web pages. The billing servers generally keep track of each user's use of the system, **specifically** including the communication time between the users and the concierges. More **specifically**, the system 2 includes a plurality of databases on the database servers which store the relevant and...user's preferences; and (viii) a pages database which stores for each user within the system a **collection** of pages which all have a file name and path associated with them. The pages database also...

...sources.
As illustrated in Fig. 4, this embodiment of the system 2 includes a plurality of concierge **clusters** 24. Each concierge **cluster** 24 includes a
1 5 concierge main **workstation** 26, a **plurality** of concierge working **terminals** 28 which communicate through the network with the concierge main **workstation** 26 and a **plurality** of user emulation **terminals** 29 which communicate through the network with the concierge main workstation 26. The concierge main alternative embodiment...

...28 and
emulation terminals 29 will be connected or in communication with users (i.e., busy) and **several** concierge **terminals** 28 and emulation terminals 29 will not be connected to users (i.e., idle and awaiting connection...

...concierge main workstation 26, the concierge terminal 28, and the client emulator 29 of the same concierge **cluster**, and (c) a user computer connected with the concierge terminal 28. The X-server on the concierge...

...26 to enable the transfer of data between the applets and the concierge application. This restriction is **determined** by the Java security model. Java is a trademark of Sun Microsystems, Inc. The video conferencing clients...634 for servers 628a in the call processing framework. The call processing framework communicates with a lightweight **directory** access protocol 636 to provide for user authorization in a conventional manner. The system is preferably adaptable...

...is known that web pages may be dynamically created each time a web page is requested. More **specifically**, when a user requests a web page, the user's request goes through the Internet to a...
...links to other pages. Preferably, the user web pages or personal pages will be composite pages of **selected** objects from other pages. This shared disk storage embodiment of the present invention thus creates a significantly...

...as if there is not internet connection for video, the system will not send video signals. More **specifically**, the user 604 is routed to a call center that is most appropriate for the user based...

...It should be appreciated that several different routines or processes could be used to route callers to **specific** assistants, I O concierges or **groups** of assistants or concierges as described below. It should be appreciated that certain of the system processes...

...URL into the user's conventional browser on the user's computer or other Internet access device (**collectively** referred to herein as the "user's computer"). The user's browser requests the system web page from the system web server 12 as indicated by block 40. The user's browser **determines** if the user's browser has a cookie associated with the concierge communication page 8 as indicated...system web server 12 validates the cookie as indicated by block 46. If the web server 12 **determines** as

illustrated by diamond 48 that the cookie is not valid or if the user's browser...

...username and password submitted by the user as indicated by block 56. The system web server 12 **determines** if the username and password are valid as indicated by diamond 58. If the username and password...

...if the username and password are valid, or if the cookie is valid, the web server 12 **determines** if the user or user's browser requested the concierge communication page 8 as indicated by decision...

...browser requested or subsequently requests the concierge communication page 8, the system 12 performs the redirection and **assignment** process (discussed in detail below) to **assign** a concierge to the user as indicated by block 66, and establishes communication between the concierge and the user as described below.

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Generally, the system 12 **determines** if a concierge is **assigned** to a user as indicated by diamond 68 and as described in detail below. If no concierge is available to be **assigned** to the user, the system web server 12

sends a busy page to the user's browser...

...web server 12 to the user's browser as indicated by block 64. If a concierge is **assigned** to the user, the system initiates a Java interface or communication between the concierge and the user including:

(i) the textual communication process which facilitates two-way textual communication between the user and the **assigned** concierge; (ii) the audio-visual communication process which facilitates two-way audio-visual communication between the user...

...with the concierge and provides communication between the user and the concierge. The system also provides the **selected** concierge with the user's web site and other relevant information to enable the concierge to view the user's web site on the user emulator terminal 29. The system 2 enables the **assigned** concierge to change the user's web site during the communication (or at any other time as...concierge main

31

workstation through which the user's chat applet and command applet may connect to, **send data** to, and receive data from the concierge application as indicated by block 82. The concierge application then...

29/5,K/11 (Item 4 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00778300 **Image available**

MACHINE VISION SENSOR UTILIZING SPREADSHEETS

CAPTEUR DE VISION ARTIFICIELLE

Patent Applicant/Assignee:

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Legal Representative:

POWSNER David J (et al) (agent), Nutter, McClennen & Fish LLP, One

International Place, Boston, MA 02110-2699, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200111862 A2-A3 20010215 (WO 0111862)

machines, one could **answer**, "The machine." While such experiences of a real world around us in which machines **answer** phones can be explained in the qualifying statement "Figuratively, that is," such is not the case with...

...it is a possible intrinsic form of I (soul) and is capable of allying itself with the **interrogative** and indefinite pronouns such as who. 1 5 As we further examine the indefinite pronouns, which act...or the semantic forms of language (epistemic instance)-the meaning embodied as one's existence-can objectively **determine** how much is enough. In just a handful of examples of the nouns of English grammar, we...

29/5,K/15 (Item 8 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00168933

MULTILEVEL DISTRIBUTED COMPUTER SYSTEM
SYSTEME INFORMATIQUE A REPARTITION MULTINIVEAU

Patent Applicant/Assignee:

DAVID SCHWARTZ ENTERPRISES INC,

Inventor(s):

SCHWARTZ David J,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9002378 A1 19900308

Application: WO 89US3622 19890823 (PCT/WO US8903622)

Priority Application: US 88493 19880825

Designated States: AT BE CH DE FR GB IT JP LU NL SE

Main International Patent Class: **G06F-015/16**

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 14711

English Abstract

A multilevel distributed computer system for distributed processing preferably includes a plurality of personal computers. A task inputted to the system is divided into a plurality of portions. As many of the portions as possible are distributed for processing on the lowest level of the system. Those portions unprocessed on the lowest level are distributed for processing on the next lowest level. Remaining unprocessed portions of the task are distributed to available computers on successively higher levels of the system until all of the task have been distributed for processing.

French Abstract

Un systeme informatique a repartition multiniveau pour le traitement reparti comprend de preference une pluralite d'ordinateurs personnels. Une tache entree dans le systeme est divisee en plusieurs parties. On distribue autant de parties que possible pour les traiter sur le niveau le plus bas du systeme. Les parties non traitees sur le niveau le plus bas sont reparties pour etre traitees sur le niveau suivant le plus bas. Les parties non traitees restantes de la tache sont distribuees aux ordinateurs disponibles sur des niveaux successivement plus eleves du systeme jusqu'a ce que toutes les parties de la tache aient ete distribuees en vue d'etre traitees.

Main International Patent Class: **G06F-015/16**

Fulltext Availability:

Detailed Description

Detailed Description

... taken in conjunction with the accompanying drawings, in which.

FIG* 1 is a block diagram of a **cluster computer system** ;

FIG* 2 is a block diagram of a token ring computer system;
FIGe 3 is a block...

...same line/bus (i.e. the ETHERNETO computer system).

As shown in FIG. 1. a prior art **cluster computer system** 10 includes between three to six computers 11 which are hard wired together and totally interlinked. Each...

Set	Items	Description
S1	31591	ORGANIZ? OR ORGANIS? OR CLASSIF? OR GROUP? OR CATEGOR? OR - ARRANGE? OR ORDER?
S2	42990	MULTIPL? OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL OR DUPL- ICATE OR UNLIMITED
S3	62504	MEMBER? OR CLIENT? OR STAND()ALONE? OR STANDALONE? OR PC OR COMPUTER? OR WORKSTATION? OR WORK()STATION? OR NODE? OR TERM- INAL? OR PROCESSOR? OR RESOURCE?
S4	21175	SUBGROUP? OR SUB()GROUP? OR CLUSTER? OR ALLOCATION()UNIT? - OR GROUP? OR COLLECT?
S5	15624	LEADER? OR CONDUCTOR? OR DIRECTOR? OR GUIDE? OR MASTER? OR LEAD? ? OR PILOT?
S6	0	CLUSTER()COMPUTER()SYSTEM? ?
S7	28109	DETERMIN? OR ASSIGN? OR APPOINT? OR SELECT? OR PICK? OR CH- OOSE OR CHOICE OR ELECT? ? OR SPECIF? OR DESIGNAT? OR DENOT? - OR APPOINT? OR NOMINAT? OR STIPULAT? OR DECID?
S8	663	(TRANSMIT? OR TRANSFER? OR READ? OR WRITE? ? OR WRITING OR TRANSFER? OR TRANSMISSION OR DELIVER? OR HANDOVER OR TURNOVER OR (HAND? OR TURN?)() (IN OR OVER) OR SEND?)()DATA
S9	31490	PERFORM? OR TRANSACT? OR EXECUT? OR DISCHARG? OR ACCOMPLIS- H? OR COMPLET? OR CARRY?()OUT OR FULFILL?
S10	7545	RESPONSE? OR ANSWER? OR ACKNOWLEDG? OR REPLY OR REPLIES OR RESPOND? OR HANDSHAKE? OR REPLY? OR REPLIES OR FEEDBACK OR FE- ED()BACK
S11	13875	DETECT? OR DETERMIN? OR RECOGNI? OR INTERROGAT? OR VERIFY? OR AUTHENTICAT? OR VALIDAT? OR JUDGE? OR IDENTIFY?
S12	6880	FAILED OR DEFECT? OR FAILURE? OR FAULT? OR MALFUNCTION? OR DEFAULT? OR DETERIORATION OR DEGRADATION OR ERROR? OR INVALID OR INOPERATIVE OR BAD
S13	1444	REPEAT??? OR REDO??? OR REPETITION OR DUPLICAT?
S14	1	(NON OR "NO" OR "NOT")() (S12 (2N) S3)
S15	8414	S1 AND S2 AND S3
S16	4678	S7 AND S5
S17	607	S15 AND S16
S18	0	S7 AND (S4 (2N) S5) AND S8
S19	2	S16 AND S4 AND S8
S20	0	S9 AND S1S0 AND S3 AND S11 AND (S12 (2N) S3)
S21	1	S19 NOT PY>2000
S22	1	S21 NOT PD>20001030

File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Oct

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22/5/1

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.
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00123662

DOCUMENT TYPE: Review

PRODUCT NAMES: AT&T PocketNet (687154); Macromedia Dreamweaver (671347);
Vignette Content Management Group Suite (059412); ColdFusion (743267)

TITLE: Waiting For Wireless: Is your site ready for the handheld generation?

AUTHOR: Lindhe, Laura

SOURCE: Industry Standard, v3 n20 p228(3) May 29, 2000

ISSN: 1098-9196

HOME PAGE: <http://www.thestandard.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

AT&T's AT&T PocketNet, Macromedia's Dreamweaver, Vignette's Content Management Server, and Allaire's ColdFusion are products highlighted in a buyers' **guide** to development tools that allow companies to re-engineer a Web site to support access by wireless browsers. Products briefly described include Aether Systems' ScoutWare and Aether Intelligent Messaging; Financial Fusion on-premises and outsourced wireless solutions; Geoworks' Mobile ASP (application service provider) server; Open Market's Transact 5 server; Phone.com's developers' kit; RTS Wireless' Advantage System, which provides wireless subscribers with personalized information; Tantau Software's Wireless Internet Platform for banks, brokerages, and retailers; W-Trade Technologies' software and consulting services; Wireless Knowledge Workstyle Server for remote access to e-mail, calendars, and contact databases; and Wysdom, which allow sites to delivery content, advertising, and e-commerce to many wireless platforms. Companies considering adding Web site support for the 1 billion cell phones and handhelds that will get Web access in the next four years should keep in mind the 'user experience.' Important considerations are the types of devices the site should support, which may include cell phones that **send data** via the Wireless Application Protocol (WAP), personal digital assistants and handhelds, and two-way pagers that operate with any e-mail service. The company must then **determine** which services should be outsourced and which should be implemented internally, and cost is a primary consideration.

COMPANY NAME: AT&T Wireless (628441); Macromedia Inc (423106); Vignette Corp (622141)

SPECIAL FEATURE: Charts Buyers Guides

DESCRIPTORS: ASP (Application Service Providers); Authoring Systems;
ColdFusion; Internet Utilities; Mobile Computing; WAP; Web Site Design;
Wireless Internet

REVISION DATE: 20030728

Set	Items	Description
S1	5868574	ORGANIZ? OR ORGANIS? OR CLASSIF? OR GROUP? OR CATEGOR? OR - ARRANGE? OR ORDER?
S2	3083351	MULTIPL? OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL OR DUPL- ICATE OR UNLIMITED
S3	4291235	MEMBER? OR CLIENT? OR STAND()ALONE? OR STANDALONE? OR PC OR COMPUTER? OR WORKSTATION? OR WORK()STATION? OR NODE? OR TERM- INAL? OR PROCESSOR? OR RESOURCE?
S4	2688985	SUBGROUP? OR SUB()GROUP? OR CLUSTER? OR ALLOCATION()UNIT? - OR GROUP? OR COLLECT?
S5	1667038	LEADER? OR CONDUCTOR? OR DIRECTOR? OR GUIDE? OR MASTER? OR LEAD? ? OR PILOT?
S6	17	CLUSTER()COMPUTER()SYSTEM? ?
S7	5224347	DETERMIN? OR ASSIGN? OR APPOINT? OR SELECT? OR PICK? OR CH- OOSE OR CHOICE OR ELECT? ? OR SPECIF? OR DESIGNAT? OR DENOT? - OR APPOINT? OR NOMINAT? OR STIPULAT? OR DECID?
S8	21410	(TRANSMIT? OR TRANSFER? OR READ? OR WRITE? ? OR WRITING OR TRANSFER? OR TRANSMISSION OR DELIVER? OR HANDOVER OR TURNOVER OR (HAND? OR TURN?)() (IN OR OVER) OR SEND?)()DATA
S9	4304571	PERFORM? OR TRANSACT? OR EXECUT? OR DISCHARG? OR ACCOMPLIS- H? OR COMPLET? OR CARRY?()OUT OR FULFILL?
S10	1419493	RESPONSE? OR ANSWER? OR ACKNOWLEDG? OR REPLY OR REPLIES OR RESPOND? OR HANDSHAKE? OR REPLY? OR REPLIES OR FEEDBACK OR FE- ED()BACK
S11	4365662	DETECT? OR DETERMIN? OR RECOGNI? OR INTERROGAT? OR VERIFY? OR AUTHENTICAT? OR VALIDAT? OR JUDGE? OR IDENTIFY?
S12	2072219	FAILED OR DEFECT? OR FAILURE? OR FAULT? OR MALFUNCTION? OR DEFAULT? OR DETERIORATION OR DEGRADATION OR ERROR? OR INVALID OR INOPERATIVE OR BAD
S13	253380	REPEAT??? OR REDO??? OR REPETITION OR DUPLICAT?
S14	193	(NON OR "NO" OR "NOT")() (S12 (2N) S3)
S15	16891	S1 AND (S2 (3N) S3)
S16	440138	S7 AND S5
S17	794	S15 AND S16
S18	7	S7 AND (S4 (2N) S5) AND S8
S19	0	S17 AND S18
S20	84	S16 AND S4 AND S8
S21	0	S20 AND S17
S22	569	S9 AND S10 AND S3 AND S11 AND (S12 (2N) S3)
S23	16	S22 AND S13
S24	0	S15 AND S20
S25	9	S15 AND S22
S26	48	S6 OR S18 OR S23 OR S25
S27	33	S26 NOT PY>2000
S28	33	S27 NOT PD>20001027
S29	28	RD (unique items)
File	8: Ei	Compendex(R) 1970-2003/Nov W3 (c) 2003 Elsevier Eng. Info. Inc.
File	35: Dissertation	Abs Online 1861-2003/Oct (c) 2003 ProQuest Info&Learning
File	202: Info. Sci. & Tech.	Abs. 1966-2003/Nov 17 (c) 2003 EBSCO Publishing
File	65: Inside	Conferences 1993-2003/Nov W4 (c) 2003 BLDSC all rts. reserv.
File	2: INSPEC	1969-2003/Nov W3 (c) 2003 Institution of Electrical Engineers
File	233: Internet & Personal	Comp. Abs. 1981-2003/Jul (c) 2003, EBSCO Pub.
File	94: JICST-EPlus	1985-2003/Nov W4 (c) 2003 Japan Science and Tech Corp(JST)
File	99: Wilson Appl. Sci & Tech	Abs 1983-2003/Oct (c) 2003 The HW Wilson Co.
File	95: TEME-Technology & Management	1989-2003/Nov W1 (c) 2003 FIZ TECHNIK
File	583: Gale Group Globalbase(TM)	1986-2002/Dec 13 (c) 2002 The Gale Group

statistically monitored and failures predicted based on the **repeated** violation of an alarm threshold. A series of heat pump failures are experimentally induced and representative results presented and analyzed to demonstrate the potential advantages of this diagnostic approach. 13 refs.

Descriptors: HEAT PUMP SYSTEMS--* **Failure** ; **COMPUTER AIDED ANALYSIS** ;
SIGNAL FILTERING AND PREDICTION--Kalman Filtering; STATISTICAL METHODS;
SYSTEMS SCIENCE AND CYBERNETICS--Estimation

Identifiers: NONLINEAR THERMOFLUID PROCESSES; ROBUST FAILURE DIAGNOSTICS;
SIXTH-ORDER NONLINEAR MODEL; MASS FLOW RATES ESTIMATION

Classification Codes:

643 (Space Heating & Air Conditioning); 723 (Computer Software); 731
(Automatic Control Principles); 922 (Statistical Methods)
64 (HEAT & THERMODYNAMICS); 72 (COMPUTERS & DATA PROCESSING); 73
(CONTROL ENGINEERING); 92 (ENGINEERING MATHEMATICS)

29/5/14 (Item 14 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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02135723 E.I. Monthly No: EIM8612-083234

Title: DISTRIBUTED FUNCTIONALITY AND CONFIGURATION OF THE DIII-D DATA ACQUISITION AND ANALYSIS SYSTEM.

Author: McHarg, B. B. Jr.

Corporate Source: GA Technologies Inc; San Diego, CA, USA

Conference Title: 11th Symposium, Fusion Engineering - Proceedings.

Conference Location: Austin, TX, USA Conference Date: 19851118

Sponsor: IEEE, New York, NY, USA; Univ of Texas at Austin, Austin, TX, USA; US DOE, Washington, DC, USA; EPRI, Palo Alto, CA, USA; ANS, La Grange Park, IL, USA; Texas Atomic Energy Research Foundation, TX, USA

E.I. Conference No.: 08769

Source: Publ by IEEE, New York, NY, USA. Available from IEEE Service Cent
(Cat n 86CH2251-7), Piscataway, NJ, USA p 594-597

Publication Year: 1986

Language: English

Document Type: PA; (Conference Paper)

Journal Announcement: 8612

Abstract: The upgrade of the Doublet III tokamak facility to the DIII-D has begun, and operation is scheduled to begin in 1986. An initial data rate of approximately 5 megabytes per shot and an eventual rate in excess of 20 megabytes per shot is anticipated, compared with the 5.3 megabytes acquired per shot at the end of Doublet III operation. A description is given of the data acquisition and analysis system for DIII-D, which will draw heavily on the software, hardware, and knowledge gained from the previous Doublet III program. One of the significant features of the Doublet III system which led to its success was the distribution of functions throughout the total system. Each computer system acted as part of a pipeline where each component performed its function as the data passed through. Communication between different components was kept to a minimum so that the functionality of each component was emphasized. For DIII-D this distribution of functionality will continue. The most important new aspect of the system is the addition of a DEC VAX cluster for real-time, as well as offline, analysis and long-term data storage. The VAX system will take over a number of functions from the Modcomp system, thus allowing the Modcomp system to concentrate fully on acquisition and control. 7 refs.

Descriptors: *TOKAMAK DEVICES--*Computer Applications; DATA PROCESSING;
COMPUTER SYSTEMS, DIGITAL--Distributed

Identifiers: DOUBLET III-D FACILITY; DATA ACQUISITION/ANALYSIS SYSTEM;
VAX CLUSTER COMPUTER SYSTEM

Classification Codes:

621 (Nuclear Reactors); 932 (High Energy, Nuclear & Plasma Physics);
723 (Computer Software)
62 (NUCLEAR TECHNOLOGY); 93 (ENGINEERING PHYSICS); 72 (COMPUTERS &
DATA PROCESSING)

Prestel, the world's first public videotex service, now has some 16,000 customers and is available to 62% of telephone subscribers in the United Kingdom on a local call basis. To provide this service either a **computer** or a remote **multiplexer** is provided in the customer's local service area. The **computers** accessed by customers for information retrieval receive their videotex page "updates" from a national center, to which they are connected in "star" configuration. Monitoring the **performance** of this nationwide, and largely unattended distributed **computer** network, is of prime importance to the operating authority and its customers in **order** to maximize the throughput of expensive equipment and to guarantee a reliable service. To this end BT have adopted several methods of **performance** monitoring. Specialist microprocessor equipment known as VAMPIRE automatically monitors the status of **computer** input ports to **detect** **faulty** modems and **computer** equipment. Hardware monitors have been deployed at selected centers to **determine** the utilization of various hardware and software processes. Mini- **computers** have been programmed to simulate user access to gain quantified information about **response** times. These specialist techniques are deployed along with more conventional **computer** and communications **fault** reporting procedures and the data thus obtained gives a reliable indication of the reliability and efficiency of the network.

Descriptors: Monitoring; Networks; **Performance** ; Prestel

Classification Codes and Description: 3.01 (Writing and Recording); 3.01 (Writing and Recording)

Main Heading: Information Generation and Promulgation

29/5/25 (Item 1 from file: 2)

DIALOG(R) File 2:INSPEC

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6002132 INSPEC Abstract Number: B9810-6210L-011, C9810-6150N-008

Title: Reliable multicast group communication in networked distributed systems

Author(s): Uminski, P.W.

Author Affiliation: Politech. Gdanskiej, Poland

Journal: Zeszyty Naukowe Politechniki Slaskiej, Seria: Informatyka
no.32 p.71-93

Publisher: Wydawnictwo Politech. Slaskiej,

Publication Date: 1997 Country of Publication: Poland

CODEN: ZNPIET ISSN: 0208-7286

SICI: 0208-7286(1997)32L:71:RMGC;1-E

Material Identity Number: H071-98006

Language: Polish Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: The **client** server programming model is a very popular model for constructing large scale distributed systems. This model allows us to specify and fulfil different reliability requirements for different parts of the system. The new idea of a highly reliable service is presented. This service, called a **group** server, is **performed** on **several** different **nodes** at the same time. **Clients** send messages to the server using reliable multicast protocol. The messages are addressed to the **group** rather than to the particular **node**. Due to the use of this protocol all **nodes** in the **group** can receive and generate the same messages. Therefore, all results obtained by all replicas should be the same-and a failure of one of the replicas does not lead to the failure of the whole service. We create a new multicast protocol, GREP (**Group** Reliable Protocol) to be used to access our **group** server. This protocol allows **clients** to send a message to the **group** and guarantees that all **members** of the **group** will receive the correct message. It also generates a common **response** from the **group**, based on results obtained from each **member** of the **group** server. GREP is a token ring based protocol, where the token is used to synchronise all **members** of the **group**. This protocol is a multilevel protocol; different subprotocols are responsible for passing token and **group** synchronisation, receiving messages, voting and sending messages, and **detecting** and diagnosing **faulty** **nodes**. The

node , which is producing results differing from the results of the other **nodes** is diagnosed as faulty and removed from the **group** until a successful recovery action is **performed** . (9 Refs)

Subfile: B C

Descriptors: **client** -server systems; fault tolerant computing; message passing; protocols; synchronisation

Identifiers: reliable multicast **group** communication; networked distributed systems; **client** server programming model; large scale distributed systems; reliability requirements; highly reliable service; **group** server; reliable multicast protocol; multicast protocol; GREP; **Group** Reliable Protocol; common **response** ; token ring based protocol; multilevel protocol; **group** synchronisation; **faulty nodes**

Class Codes: B6210L (Computer communications); B6150M (Protocols); C6150N (Distributed systems software); C5640 (Protocols); C5470 (Performance evaluation and testing); C5440 (Multiprocessing systems); C6110 (Systems analysis and programming); C5620L (Local area networks)

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29/5/26 (Item 2 from file: 2)

DIALOG(R) File 2:INSPEC

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5939509 INSPEC Abstract Number: B9807-6150M-082, C9807-5640-066

Title: Center placement algorithms for large multicast groups

Author(s): Weigmann, A.S.; Nonnenmacher, J.; Biersack, E.W.

Author Affiliation: Inst. Eurecom, Sophia Antipolis, France

Conference Title: High Performance Networking VII. IFIP TC6 Seventh International Conference on High Performance Networks (HPN'97) p.18-35

Editor(s): Tantawy, A.

Publisher: Chapman & Hall, London, UK

Publication Date: 1997 Country of Publication: UK x+351 pp.

ISBN: 0 412 82070 6 Material Identity Number: XX98-00858

Conference Title: High Performance Networking VII. IFIP TC6 Seventh International Conference on High Performance Networks (HPN'97)

Conference Date: 28 April-2 May 1997 Conference Location: White Plains, NY, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: An increasing number of distributed applications require a **specific** form of multicast called dissemination, in which a single source reliably **transfers data** to multiple receivers. Reliability **leads** for large **groups** of receivers (100s or 1000s of participants) to the problem of feedback implosion at the source and to a decrease of transmission efficiency. The cluster approach was identified to have excellent scalability with the number of receivers. It partitions the multicast delivery tree into clusters, where a representative in the cluster called center is used for local feedback processing and local transmission. Up to now, clustering/center placement has been done administratively or based on network addresses. We require center placement algorithms, allowing the introduction of placement criteria based on the network topology and on delay. Three center placement algorithms designed for static multicast groups are presented and simulation results are shown in order to assess their performance. (20 Refs)

Subfile: B C

Descriptors: data communication; distributed processing; network topology ; protocols

Identifiers: center placement algorithms; large multicast groups; distributed applications; dissemination; data transfer; multiple receivers; cluster approach; scalability; multicast delivery tree; local feedback processing; local transmission; network topology; delay; performance assessment

Class Codes: B6150M (Protocols); B6210L (Computer communications); C5640 (Protocols); C5620 (Computer networks and techniques); C6150N (Distributed systems software)

Copyright 1998, IEE

29/5/27 (Item 3 from file: 2)
DIALOG(R) File 2:INSPEC
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02095019 INSPEC Abstract Number: B83045185, C83031629

Title: Monitoring the technical performance of a national videotex network

Author(s): Clarke, K.E.; Cantwell, B.D.; Steel, G.J.

Author Affiliation: British Telecom Res. Lab., Ipswich, UK

Conference Title: Pathways to the Information Society. Proceedings of the Sixth International Conference on Computer Communication p.206-11

Editor(s): Williams, M.B.

Publisher: North-Holland, Amsterdam, Netherlands

Publication Date: 1982 Country of Publication: Netherlands xx+1018

pp.

ISBN: 0 444 86464 4

Conference Sponsor: Int. Council Comput. Comm

Conference Date: 7-10 Sept. 1982 Conference Location: London, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A)

Abstract: Prestel, the world's first public videotex service, now has some 16000 customers and is available to 62% of telephone subscribers in the United Kingdom on a local call basis. To provide this service either a **computer** or a remote **multiplexer** is provided in the customer's local service area. The **computers** accessed by customers for information retrieval receive their videotex page 'updates' from a national centre, to which they are connected in 'star' configuration. Monitoring the **performance** of this nationwide and largely unattended distributed **computer** network is of prime importance to the operating authority and its customers in **order** to maximise the throughput of expensive equipment and to guarantee a reliable service. To this end BT have adopted several methods of **performance** monitoring. Specialist microprocessor equipment known as VAMPIRE automatically monitors the status of **computer** input ports to **detect** **fault** modems and **computer** equipment. Hardware monitors have been deployed at selected centres to **determine** the utilisation of various hardware and software processes. Minicomputers have been programmed to simulate user access to gain quantified information about **response** times. These specialist techniques are deployed along with more conventional **computer** and communications **fault** reporting procedures and the data thus obtained gives a reliable indication of the reliability and efficiency of the network. (2 Refs)

Subfile: B C

Descriptors: viewdata

Identifiers: videotex network; Prestel; telephone subscribers; multiplexer; information retrieval; distributed **computer** network; fault modems; **computer** equipment

Class Codes: B6210K (Viewdata and teletext); C7210 (Information services and centres)

29/5/28 (Item 1 from file: 94)
DIALOG(R) File 94:JICST-EPlus
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04448578 JICST ACCESSION NUMBER: 99A0134617 FILE SEGMENT: JICST-E

Hand Made Super Computer. Myrinet.

KOBAYASHI HIROYUKI (1)

(1) Sumishoerekutoronikusu

Erekutoronikusu, 1999, VOL.44,NO.1, PAGE.20-22, FIG.3, TBL.1, REF.1

JOURNAL NUMBER: F0037AAL ISSN NO: 0421-3513 CODEN: ERKTA

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:654

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

ABSTRACT: This paper introduces the high-speed network, Myrinet, which is

appropriate to the **cluster computer system** used as a computer by connecting plural number of personal computers and workstations with a network with each other. Myrinet with which the high speed communication of 1.28Gbps in unidirectional communication and 2.56Gbps in bi-directional communication can be made, has the network topology enabling the cube and two-dimensional mesh network even with the multiple switch structure, and latency performance under 5.MU.s in actual values. Network architecture elements/functions and cases of introduction are explained.

DESCRIPTORS: interconnection network; network architecture; personal computer; workstation; interconnection; supercomputer; transmission speed; high speed; data transfer; LAN; parallel processing

BROADER DESCRIPTORS: computer network; communication network; information network; network; digital computer; computer; hardware; connection; velocity; transmission characteristic; characteristic; treatment

CLASSIFICATION CODE(S): JC03000K

Set	Items	Description
S1	11156888	ORGANIZ? OR ORGANIS? OR CLASSIF? OR GROUP? OR CATEGOR? OR - ARRANGE? OR ORDER?
S2	6832596	MULTIPL? OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL OR DUPL- ICATE OR UNLIMITED
S3	10344233	MEMBER? OR CLIENT? OR STAND()ALONE? OR STANDALONE? OR PC OR COMPUTER? OR WORKSTATION? OR WORK()STATION? OR NODE? OR TERM- INAL? OR PROCESSOR? OR RESOURCE?
S4	6517119	SUBGROUP? OR SUB()GROUP? OR CLUSTER? OR ALLOCATION()UNIT? - OR GROUP? OR COLLECT?
S5	7570651	LEADER? OR CONDUCTOR? OR DIRECTOR? OR GUIDE? OR MASTER? OR LEAD? ? OR PILOT?
S6	28	CLUSTER()COMPUTER()SYSTEM? ?
S7	7901154	DETERMIN? OR ASSIGN? OR APPOINT? OR SELECT? OR PICK? OR CH- OOSE OR CHOICE OR ELECT? ? OR SPECIF? OR DESIGNAT? OR DENOT? - OR APPOINT? OR NOMINAT? OR STIPULAT? OR DECID?
S8	79403	(TRANSMIT? OR TRANSFER? OR READ? OR WRITE? ? OR WRITING OR TRANSFER? OR TRANSMISSION OR DELIVER? OR HANDOVER OR TURNOVER OR (HAND? OR TURN?)() (IN OR OVER) OR SEND?)()DATA
S9	9747767	PERFORM? OR TRANSACT? OR EXECUT? OR DISCHARG? OR ACCOMPLIS- H? OR COMPLET? OR CARRY?()OUT OR FULFILL?
S10	2996778	RESPONSE? OR ANSWER? OR ACKNOWLEDG? OR REPLY OR REPLIES OR RESPOND? OR HANDSHAKE? OR REPLY? OR REPLIES OR FEEDBACK OR FE- ED()BACK
S11	4073272	DETECT? OR DETERMIN? OR RECOGNI? OR INTERROGAT? OR VERIFY? OR AUTHENTICAT? OR VALIDAT? OR JUDGE? OR IDENTIFY?
S12	2212275	FAILED OR DEFECT? OR FAILURE? OR FAULT? OR MALFUNCTION? OR DEFAULT? OR DETERIORATION OR DEGRADATION OR ERROR? OR INVALID OR INOPERATIVE OR BAD
S13	501026	REPEAT??? OR REDO??? OR REPETITION OR DUPLICAT?
S14	365	(NON OR "NO" OR "NOT")() (S12 (2N) S3)
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S16	1270572	*deleted* S7 (S) S5
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S18	23	S7 (S) (S4 (2N) S5) (S) S8
S19	0	S17 (S) S18
S20	371	S16 (S) S4 (S) S8
S21	0	S20 (S) SS17
S22	188	S9 (S) S10 (S) S3 (S) S11 (S) (S12 (2N) S3)
S23	35	S22 (S) S13
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S25	15	S15 (S) S22
S26	188	S22 (S) S12
S27	187	S26 (S) S3
S28	15	S27 (S) S15
S29	121	S6 OR S18 OR S23 OR S24 OR S25 OR S28
S30	64	S29 NOT PY>2000
S31	46	S30 NOT PD>20001027
S32	41	RD (unique items)
File	15:ABI/Inform(R)	1971-2003/Nov 22 (c) 2003 ProQuest Info&Learning
File	810:Business Wire	1986-1999/Feb 28 (c) 1999 Business Wire
File	647:CMP Computer Fulltext	1988-2003/Nov W3 (c) 2003 CMP Media, LLC
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users are searching for more physical flexibility regarding information delivery. By transmitting information...

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01446935 SUPPLIER NUMBER: 11048326 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Digging deep into disks! (accessing physical areas of disks to write sector editors and disk compressors) (technical)
Shepard, Simon
EXE, v6, n1, p79(4)
June, 1991
DOCUMENT TYPE: technical ISSN: 0268-6872 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3577 LINE COUNT: 00251

... disk is divided into different MSDOS partitions, each of which is treated as a logical volume and **assigned** a drive letter by MS-DOS, as we have said. Under the extended partitioning scheme, the disk and **assigned** one drive letter, but many logical volumes may reside within the extended partition, with each volume being **assigned** a unique drive **designator**. In our example, the first table entry, corresponding to the C: drive is the primary MS-DOS...

...the mental arithmetic wizard reading this article will have spotted one small problem. A 512 MB drive, **assigned** to one volume, would have 1 million 512 byte sectors, which, even with eight sectors per **cluster**, would **lead** to a rather large FAT of some 1000 sectors. To add to the problems, various internal MS-DOS data structures, such as the variables in the request headers used for **transferring data** to and from disk device drivers, were unable to cope with sector numbers larger than the word limit. Accordingly, Compaq overcame the problem by **stipulating** that their very large partitions would have more sectors per cluster (as many as 16 sectors per...

...header length is now 24 bytes, and the disk drivers in IBMBIO.COM check this size to **determine** whether they are being passed requests for the special extended partitions. As a double check, the device...Compaq to indicate that one of its huge partitions is in use. The identification byte 06h was **assigned** to this job, and always implies that a 16-bit FAT is in use. So the current...

32/3,K/14 (Item 7 from file: 275)
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01318244 SUPPLIER NUMBER: 07881958 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The hidden benefits of data compression. (includes a related article on the V.42 bis data compression standard)
Powell, Dave
Networking Management, v7, n10, p46(6)
Oct, 1989
ISSN: 1052-049X LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3991 LINE COUNT: 00311

... in North America, all of which can simultaneously work on job data bases in our central VAX **Cluster computer system**.
"The network, and data compression in particular, have made it possible for us to draw upon our...

32/3,K/15 (Item 1 from file: 674)
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085568

The benefits of a Windows 2000 cluster

High-availability services are easy to install and manage, but clustering software needs more automation.

Byline: Jeffrey Fritz

Journal: Network World Page Number: 51

Publication Date: July 03, 2000

Word Count: 2685 Line Count: 239

Text:

... absolutely know what you are doing. Clustering links individual servers physically, and coordinates communication so they can **perform** common tasks. Should a server stop functioning, a process called failover automatically shifts its workload to another...

... site, Compaq engineers set up and configured the cluster server. The purpose of our test was to **determine** the ease of operation, the reliability and the ability to manage this cluster server package. We tested the ability to do rolling upgrades, network load balancing, **failure detection** /recovery and failover/failback. There were things we really liked about Win 2000 Cluster Services. The software...

...where improvement is definitely needed. Much of the failover and restore operations require manual intervention. Alerts concerning **failed** hardware are not automatically presented to the administrator. When a drive **failure** occurred there were too many dialogue boxes to dismiss before service could be restored. The unit tested...

... and a separate 1850R running as a domain controller. Each 1850R had a 600-MHz Pentium III **processor**. Three of the ProLiant servers were running as individual web servers. (See Figure 1, Testbed diagram). The rack...

... consists of a core application stack that includes load balancing, application services such as Web servers, data **resources**, security and management. Under the clustering infrastructure used by Windows 2000, the **clients** access the cluster services through a series of IP-based servers that handle Network Load Balancing (NLB.) The NLB software directs the **client** to a server in the cluster that can accept the session. This prevents any one server from being overloaded by **client** requests or sessions. Win 2000 uses a shared-nothing environment where each cluster **node** has its own memory and disk storage. At any instant, only one **node** is managing each disk. **Nodes** across a common link that is separate from the connection used to provide connections to the RAID or mirror arrays. If a server fails to **respond** to the heartbeats generated by another **node** and sent across the common link, the shared-nothing architecture automatically transfers ownership of **resources** such as disk drives and IP addresses from the **failed** server to another server. Rolling upgrades One of the biggest problems facing server administrators is how to manage...

... in server downtime. One of the more interesting clustering features of Win 2000 is the ability to **perform** a rolling upgrade of the system that lets cluster **nodes** to be upgraded, one **node** at a time, so that services and **resources** offered by the cluster are continually available. This allows administrators to move the system to a new...

... upgrade the operating system without disrupting services to users. We simulated a rolling upgrade by doing a **complete** reinstallation of Win 2000 and SQL Server 7.0 on one of the cluster **nodes**. We found there were some preliminary steps needed to prepare the cluster for this procedure. The **node** being upgraded could be removed from the cluster only if the cluster service is stopped in advance. After doing this, we were able to evict the **node** from the cluster. We then formatted the drive and reinstalled the operating system and cluster services on the "upgraded" **node**. Finally, by using the Add Remove Programs Control Panel and adding the clustering application the rebuilt **node** was able to join the existing cluster. During the upgrade, user access to the cluster server was...
... that sets up the manner the SQL is to be handled in the event of a

system **failure** . After a few false starts to figure out how to assign **resource** ownership for the shared drives and services, we were able to get the SQL **group** created and back into the cluster. Network Load Balancing Microsoft's NLB software distributes ...creates a single virtual IP network address for all the servers operating in the cluster. From the **client** 's point of view, the cluster appears to be a single server. In theory, each **client** 's request is distributed among the various Web servers. However, every time we went to the virtual...

... of hits to each of the three NLB servers and proved that NLB was indeed working properly. **Failure Detection & Recovery**One of the goals of our testing was to **determine** if Win 2000 could recover from **failures** that we generated in both the software and hardware of the cluster server. Mission-critical applications and data should never be offline for more than a minute. **Failures** should trigger recovery processes, automatically restarting applications or entire server workloads on a surviving machine in the cluster. This process, from **detection** through recovery, should typically occur in no more than a minute or two. In our testing, we found Win 2000 could take considerably longer to recover (up to five minutes depending on the **failure** .)We tested this capability by destroying, deleting or renaming files in the Windows NT system folder and...
...ability to rebuild itself from any damage we tried incur on the cluster. Understandably, we could cause **failures** by manually stopping certain services such as the cluster services. However, we found it hard to do...

... serious file damage because Windows File Protection prevented the replacement of essential system files.We then simulated **failures** both to the mirrored and RAID arrays. First, we **failed** the mirror array by pulling out one of the mirrored drives. Although the system continued to function normally, we were disappointed that there was no drive **failure** warning generated and placed on the console screen. We found a similar situation with the RAID array...

... up and continued to function normally. However, again there was no notification from Advanced Server that a **failure** had occurred.Although the system provided for our testing had redundant drives and servers, they were all...

... This is a common oversight and a potentially serious one because it creates a single point of **failure** . And fail it did - right out of the box, so to speak. As soon as it was...

... a replacement hub could be shipped in and installed by a Compaq technician the next day. This **failure** underscored how critical redundancy is within a cluster server. When it comes to mission critical applications, nothing in the system should ever be a single point of **failure** .Compaq includes an application in this bundle called the Compaq Array Utility (CAU) which allows you to...

... or the RAID array in either their logical or physical configurations. Running the CAU correctly pointed out **failed** drives in both the mirrored array and in the RAID array. However, the CAU is not normally run continuously and therefore has no way to automatically alert the user when a drive **failure** occurs. The Windows Event Viewer also indicates **failed** drives, but as in the case of the CAU you must specifically open the Event Viewer to see the **failure** . Because these tools are not normally active, they create a potentially dangerous situation. Should a drive **failure** occur in either the mirrored drives or in a drive in the RAID cluster, the server administrator is not likely to be aware of it. A second **failure** in either a mirrored drive or a second drive in the RAID array will cause everything to fail. In our system, simulating a second drive **failure** did indeed bring everything to a screeching halt. Although it did not come pre-installed on our...

... and other hardware in the system. Although we did not test this, SNMP should trap a drive **failure** and send it to an SNMP management console. Failover and failbackWin 2000 provides a flexible system where you can

declare a single **node** , multiple **nodes** or no **node** as the preferred owner. The preferred owner designates which of the cluster services - such as SQL and Cluster Services - are under the control of which of the cluster **nodes** . You set this on a per-service basis and can also manually move disk services - such as cluster **groups** and SQL -between **nodes** at will. In addition, you can set how you want failback to occur. The choices are immediate...

... example, to set failback to occur exactly at 30 minutes or one hour after restoration of the **failed** system. (Restoration occurs by either repairing the problem or replacing hardware. Failback occurs when something that was previously offline returns to service.) We tested failover and failback by setting Cluster **Node 2** as the preferred owner of both SQL and Cluster Services. We then set the failback to...

... Services. After doing this, we verified that we could manually move SQL and Cluster Services between Cluster **Node 2** and Cluster **Node 1**. After moving both services back to Cluster **Node 2**, we **failed** it by pulling its Fibre Channel connection. This disconnected Cluster **Node 2** from the disk arrays. The SQL and cluster services automatically moved to Cluster **Node 1** as expected. Next, we restored Cluster **Node 2** by plugging the Fibre Channel connection back in. Before we could bring Cluster **Node 2** back on line, however, we had to clear a large number of dialog boxes (eight to 10) and manually restart the cluster services. In this state, SQL automatically moved back to Cluster **Node 2**, but Cluster Services remained on Cluster **Node 1**. When we tried to move the Cluster Services back to Cluster **Node 2**, the Cluster Services went offline, and then came back online once again by Cluster **Node 1**. In other words, the Cluster Services could no longer be moved either manually or automatically by the system. Any attempt to examine the cluster using the CAU also **failed** because ownership was now split between Cluster **Node 1** (Cluster Services) and Cluster **Node 2** (SQL.) When we **failed** Cluster **Node 1** by pulling its Fibre Channel connection, we immediately received a message that cluster database "was no longer available." In other words, we had experienced a **complete** and total **failure** that rendered the entire system inoperable. The solution to this situation requires a fair amount of manual intervention. By pulling the Fibre Channel connection, Cluster **Node 2** could no longer see the disk array even after the connection was restored because the **failed node** once restored does not automatically rescan the disks as might be expected. A workaround is to manually rescan the disks by going to **Computer Management: Storage:Disk Management** and selecting 'Rescan Disks.' Because a reboot forces a rescan of the disks, this could also be **accomplished** by rebooting the previously **failed cluster node** . However, a disk rescan takes about 11 seconds. Therefore, it is faster to rescan than reboot the **node** .As we mentioned earlier, the CAU is used for installing, configuring and testing of the RAID array...

... services, SQL and cluster services. It's a normal procedure to balance the various services between cluster **nodes** . However, when we did this, any attempt to run the CAU **failed** . We asked both Microsoft and Compaq to address this problem. Compaq pointed to Microsoft's shared-nothing environment as the root of CAU **failure** problem. Shared-nothing requires all disk services to run on a single cluster **node** with the other **node** running in hot standby. Balancing services between cluster **nodes** can not be done if the user expects the CAU to function. At last report, Microsoft and...

... In the meantime, the work-around is to move all disk-based services to the same cluster **node** prior to running the CAU. You can then do whatever disk administration or maintenance is necessary with...

... It also contains notes on planning an installation, running the setup utility, upgrading and installing on cluster **nodes** , system recovery and troubleshooting. More information is needed to run a system this complex. Fortunately, the Microsoft...

32/3,K/16 (Item 2 from file: 674)
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080450

IP Multicast still waiting for takeoff

A lack of management tools, interoperability issues and immature protocols slow the bandwidth-saving technology's growth.

Byline: JASON MESERVE

Journal: Network World Page Number: 24

Publication Date: January 10, 2000

Word Count: 977 Line Count: 89

Text:

... was first introduced in Steve Deering's doctoral dissertation in 1988. Multicast technology can be used to **send data** - such as streaming media, stock quotes or inventory updates - simultaneously from one-to-many or many-to...

... enterprises are a mixed bag in terms of what they have for equipment," says Stan Schatt, research **director** at Giga **Group**. "There is still something like 6% of companies with token ring. A lot of networks still have...

... reserved Class D IP address, there is some worry about its scalability. Multicast uses "routing trees" to **determine** its path through the network. Because Class D addresses are limited, Coltun fears there won't be...

... s Coltun, who sees a combination of servers and services that combine unicast and multicast technologies to **deliver data** as efficiently as possible. Under this scenario, corporations can multicast data as far out on the network...

32/3,K/17 (Item 3 from file: 674)
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078806

Event Correlation

From myth to reality

Byline: ROBERT FREITAS

Journal: Network World Page Number: 65

Publication Date: October 25, 1999

Word Count: 1634 Line Count: 148

Text:

In a darkened network operations center, operators and engineers mill about, **performing** their routine morning rituals, drinking coffee, reading e-mails and checking log files. A large display dominates the scene, providing a topology map that changes color with the status of each **node**. An idle event browser is displayed next to the map. All of a sudden, the event browser...

... nonstop. The operators spring into action, frantically banging away on every available keyboard in an effort to **determine** what went wrong. The operations manager bursts in and bellows, "What's going on?" The lead operator...

... focuses on isolating problems specific to a particular device. 2. The network level, which focuses on how **nodes** in the network are connected to each other and the impact each **node** has on its neighbors. 3. The service level, which is concerned with applications that use the network and how **failures** at the object, network and/or service levels impact the **performance** of a particular service. Most **organizations** do not achieve effective event correlation because they are unable to establish the relationships among these three...

... information is processed to isolate the root cause of a problem pertaining only to that object (or **node** in the network). When a problem occurs, the event correlation engine (ECE) needs to ask a complex set of questions, the **answers** to which eventually lead to a problem **determination**. For example, let's say a router generates an SNMP trap, informing the ECE that an interface has just gone down. The ECE needs to **verify** some base level information that the interface is really down and that it's not supposed to...

... the router is overutilized and needs to be upgraded. Network levelThe network level is concerned with how **nodes** are related to each other and how the **failure** of one (or more) **node** will affect the rest of the network. This needs to be done by examining the connections between the **nodes** and constructing a database of these connections. The idea is to **determine** a set of parent/child relationships to every **node** being monitored. Naturally, this will be a many-to-many relationship because **nodes** could have **multiple** children and multiple parents. With this information, the **complete** path to any **node** can be known, and it will be possible to **recognize** that a large stream of alarms are the result of a single **node**. At first blush, it may seem that this information is available in the topology map. However, topology...

... application level, problems are not really problems at all; they are symptoms of some other problem, the **failure** of a **node** (at the object level) or a connection (at the network level) or a subordinate service such as Domain Name System (at the service level). The ECE needs to **recognize** that a service has **failed** and then map the symptom to the actual problem. Knowing the logical relationships and the dependencies among the various network **nodes** is the key at the service level. Unfortunately, each service is unique and can have a complicated...

... from Ganymede Software. Realistically, the process of finding all the relationships will be an iterative one. After **determining** the dependencies, it will then be possible to use tools to measure the **performance** of the service. There are three basic approaches to measuring application **performance**: 1. use simulated **transactions**. 2. use agents on every user desktop. 3. use agents on the servers. Here's how an...

...s assume that an interface is down, and suppose the marketing department has negotiated a 10-second **response** time for each Web page to be displayed. And let's assume that the Web server makes SQL queries to a Sybase server, which happens to be on the other side of the **failed** interface. The ECE needs to notice that the Web page has not been displayed ... need to deploy event correlation: 1. Whether it's autodiscovery with a management platform, such as Network **Node** Manager or NetView 6000, or a manually populated database, there needs to be some way for **node** information to be added, deleted, and modified. Accurate **node** information is the mortar and stone of the network management system. 2. Next, there needs to be...

... Data Protocol (UDP)/TCP socket connections. 4. The network management system should be divided into components that **perform** particular tasks. At the top of the system would be the Manager of Managers (MOM). The MOM...

... relationship database is maintained and used. The MOM has the big picture and is best-suited to **perform** the service-level correlation. There are a number of tools available today that can fill this role...
... three ECEs feeding the MOM with alarm information. Each needs to be customized with models for the **nodes** that it manages. Each is responsible for one layer of the network infrastructure, one for the backbone...

... models can be customized and enhanced to match a specific series of events. Each network is unique, **complete** with its own set of quirks. A generic model may provide a good template, but it will...